

NODERN HOSPITAL

S. W. S.

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New York, December, 1913.

Disagreeable after-effects and consequences of anesthesia have often been regarded as something quite natural and to be taken for granted.

Rarely has it occurred to anybody to question the purity of

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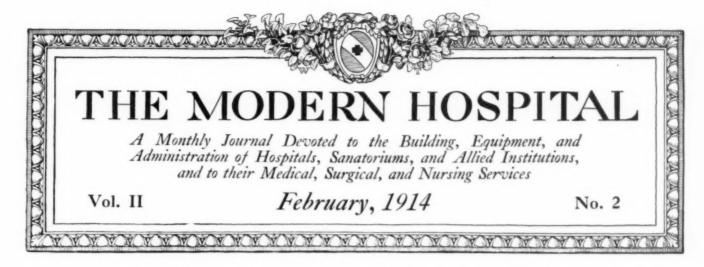
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PLANS AND PURPOSES OF "SEA VIEW" TUBERCULOSIS HOSPITAL.

Patterned After No Architectural "School," It Is a Modern American Hospital, Designed to Care for Patients in All Stages of Disease—Has 1,014

Beds and 600 More May Be Added.

BY RAYMOND F. ALMIRALL, ABCHITECT.

THIS hospital is designed to provide a general hospital for the indigent of New York City suffering from tuberculosis, complicated with other disease process or condition, but now is being used for early and late pulmonary tuberculosis. It is intended to supply the necessary equipment for general and special medical and surgical care and treatment, to provide for residence through convalescence, and to offer every facility for scientific study and research. The hospital is owned by the city and administered through the Department of Public Charities.

The Sea View Hospital was proposed by Mr. James H. Tully, commissioner of charities during 1902-1905. Under his direction preliminary drawings were made and approved. His successor, Mr. R. W. Hebberd, commissioner during 1906-1909, began and vigorously prosecuted the construction. The working drawings, and the specifications of all of the work which has been completed to date, were approved and furthered by him. Mr. M. J. Drummond, commissioner during 1909-1913, secured appropriations necessary for the progress of the work.

The property is located on Todt Hill, Manor Road, Staten Island, Borough of Richmond, New York. It contains twenty-five acres, which is about half the area essential to the ultimate protection and isolation of the hospital. It was acquired several years ago, during the incumbency of Mr. Homer Folks as commissioner of charities, in connection with the development of habitations for the city's poor.

The land slopes off to all sides except the north, making a good natural drainage. The prevailing

southerly and favorable winds blow from over the New Jersey pinelands, the wooded hillsides to the north shield the hospital from the most disagreeable storms, and extended sea and landscapes present an unusual visual interest.

Much credit is due, I think, to the farsightedness of those who took advantage of this favorable site and caused its purchase. Courage in carrying through this enterprise gave unquestionable impetus to the now accepted idea of locating institutions where the environment will be of special advantage to their future inmates. To Commissioner Hebberd, more than to any other, is due the credit for the erection of Sea View Hospital. At the time this site was purchased, and the work of construction begun, little intelligent thought was given to the expectations of actual permanency in hospital convenience, location, and building.

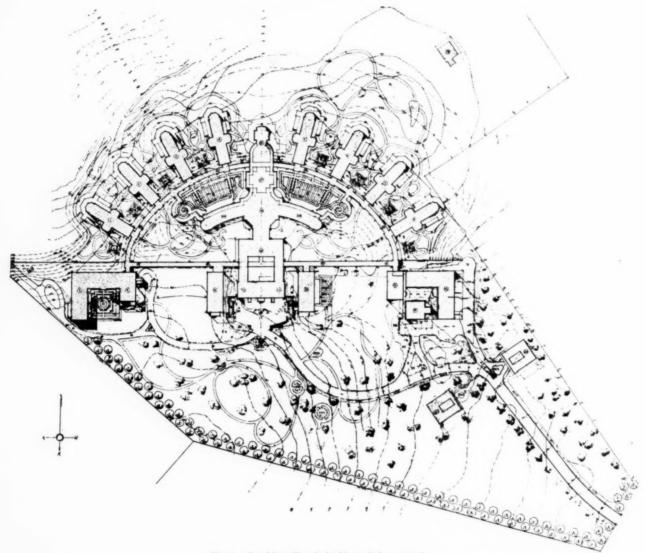
Staten Island is reached from a municipal ferry at the Battery, the southerly end of the Borough of Manhattan. From the Staten Island terminal at St. George a trolley runs to Castleton-Four-Corners, from which place the hospital is about a mile distant. The fares one way aggregate 10 cents. With the proposed extension of rapid transit and the contemplated arrangement of transfers between the municipal ferry and the subways, the entrance to the hospital grounds will then be reached from any of the boroughs for a fare of 10 cents and within a hour's time.

The hospital, when completed, will contain 1,014 beds and will consist of twenty-two buildings, viz.: the administration building, the storage and dining hall building, the congregate chapel and the

therapeutic pavilion, located on the minor axis (north to south), the eight ward buildings radiating from the elliptical curve; the nurses' home. the surgical pavilion, the administration building, the staff house, the pathological building, the power house and laundry building, and the ambulance house, located on the major axis (east to west); the two dormitory buildings for men and

the congregate chapel, pathological building, therapeutic pavilion, the two help buildings, and the residence for the medical superintendent, the designs of which have long been prepared.

The general plan takes advantage of the natural grades, utilizing them to assist in making use to the fullest extent of the excellent exposure offered by the site. Sunlight is obtained in every



women.

4, general ward pavilion, No. 4, for women.

8, general ward pavilion, No. 8, for men.

Fig. 1. Sea View Hospital-Plan of the grounds.

1, general ward pavilion, No. 1, for women.
2, private room pavilion, No. 2, for women.

10, dining hall and kitchen building.
10, dining hall for women.
10, dining hall for women.
10, dining hall for women.
10, dining hall for men.

women.

3, general ward pavilion, No. 3, for women.

4, general ward pavilion, No. 4, for 8, general ward pavilion, No. 8, for 13, staff house.

14, laundry building and power house.

15, ambulance house. 16, pathological building. 17, chapel. 18, pavilion for physical thera-

peutics.
20, dormitory for men help.
21, dormitory for women help.
22, covered corridor.

women help, located to the north of the power house and on either side of the entrance roadway: and the residence of the medical superintendent, for which no proper site now exists.

In the planning of the hospital its extension has been anticipated. Estimates make it appear safe to say that 600 beds could readily be added for a sum of \$750,000.

No appropriations have been made to construct

part of each building. The layout better explains the positions of the various buildings and their relations to each other than can any description.

Those buildings on the minor axis (north and south), which axis divides the men's and women's ward buildings, furnish services common to both sexes; their positions increase efficiency of service and convenience of access. All the buildings, except the two buildings for help and the resi-



Fig. 2. Sea View Hospital-Panoramic view, showing court, corridors, and service buildings.

dence for the medical superintendent, connect with the inclosed corridor, from which they may be directly entered. From the south side of the power house and laundry building, and beneath the covered corridor connecting this group with the administration building, a road extends for the delivery of supplies to the service building from the courtyard between it and the administration building, where the road terminates. Below the elliptical corridor extend two separate tunnels of full horizontal width. In the upper one there will operate the food conveyor, in the lower tunnel are laid the tracks for a flat electrically

Fig. 3. Sea View Hospital—A patients' pavilion, showing porches and sun rooms.

propelled car for general service on one side, and on the other are arranged vertically the main supplies of water, heat, electricity, and refrigeration. The tunnel for the food conveyor connects by elevators with the ward service pantry of the central kitchen and by lifts with each ward diet kitchen. The lower tunnel connects directly with all buildings with which the inclosed corridor connects, except the staff house, administration building, and surgical pavilion. The equipments and service provided offer every known means for the care and comfort of patients, and render inexcusable the least uncleanliness.

The architecture is modern and of no historical or geographical style. A consistent effort has been made to express hospital purpose by simplicity, and by light, air, abundant veranda space and cheerfulness. The buildings are of a lightgray color, with horizontal bands and friezes of brilliantly colored faience. The roofs are of red Spanish tile. All buildings are fireproof. Such design may be thought to better emphasize the hospital idea than the apartment house or semimonumental adaptations that greet us so frequently in this country. I regret to say that such seem most popular with donors, boards, and committees having to do with hospital buildings. To furnish plain wall surfaces and eliminate costly and dirt-harboring rusticated brickwork, projecting stone bands and cornices, which supply the dust to be blown into conveniently located windows; to provide a sufficiency of veranda space on each floor to accommodate every bed of each ward, and to eliminate the oppressive and dismal appearance of the building and its approaches, is perhaps novel, though of great practical advantage. The landscape work constituting the approaches has been considered an important phy-

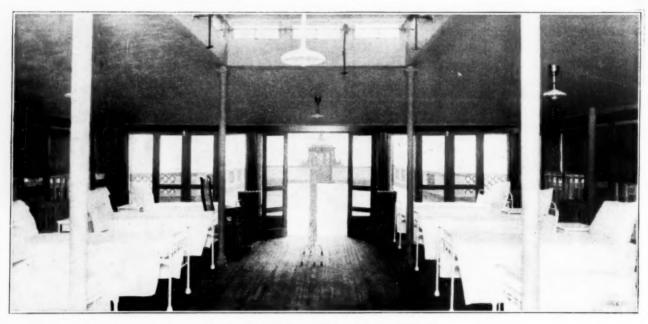


Fig. 4. Sea View Hospital-Interior of a roof ward.

sical environment of the buildings and gardens. Plantings of shrubs and trees and the pergolas accentuate the effort made to contribute abundantly from architectural sources to produce surroundings beneficial to the morale of patients.

The wards, as the published plans show, sepa-

rate the patients into three groups of twelve and six of six, the rooms being separated from each other, and from the corridor between the two 6-bed divisions, and leading to the 12-bed division, by plate glass windows. Supervision and attendance is made fully as easy as if the same number

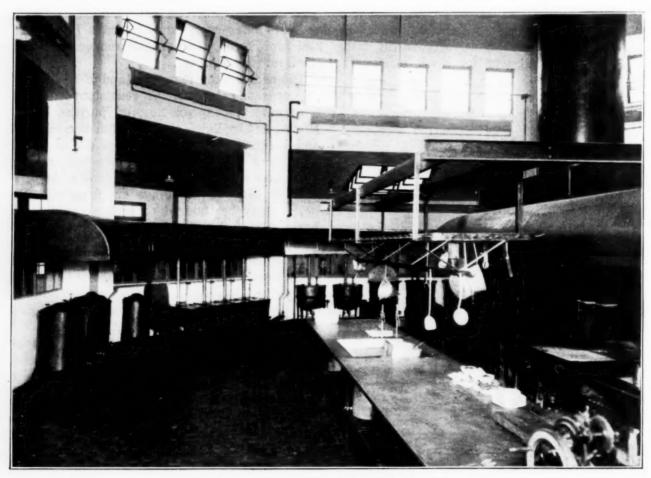


Fig. 5. Sea View Hospital-Interior of central kitchen.

of beds were contained in one room. The means of segregation offered presents undeniable advantages. The diet kitchen of each ward is separated from one of the 6-bed divisions by plate glass, and from it the entire 3-room ward may be overlooked. The dividing corridor is extended to the northern end of each ward floor. On either side of it are the customary and some additional service rooms, the elevator, and stairs. At the southern end of each ward floor is a large sola-

wards of the surgical pavilion cork flooring is used, and the flooring, walls, and ceilings of the operating rooms are of tile. It would be impractical to further describe in detail the various buildings.

The special features not used, to my best knowledge, before the appearance of the original drawings are the ward divisions (the T wards); the grouping of such ward services as the fixtures and equipment for emptying, cleaning, and ster-

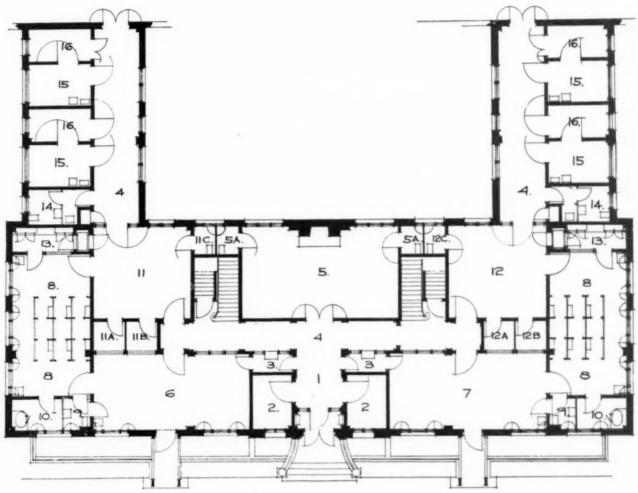


Fig. 6. Sea View Hospital-Administration building.

- 1, entrance hall.
- 1, entrance hall.
 2, ante-rooms.
 3, offices.
 4, corridors.
 5, visitors' room.
 5A, toilets.
- 6, incoming patients (women).
- 7A, toilets.
 8, shower baths.
 9, toilets.
- 10, soiled linen. 11, 11A, 11B, waiting rooms
- (women).
 11C, toilet.
 12, 12A, 12B, waiting rooms
- 12C. toilet. 13. clean clothes. 14, toilets.
 15, examination rooms.
 16, dressing rooms.

rium. Casement windows extend to the floor, and on the sash are provided removable framed muslin screens, so arranged, however, that they may be fixed in positions as will deflect any current of air from the bed when the windows are open. The heating surfaces permit raising the temperature of a ward very rapidly. Long-leaf quarter-sawed yellow pine has been used for the ward and corridor floors, and tile generally for lavatories, baths, and toilet rooms. No particular new materials have been experimented with, though in the

ilizing vessels, the cremation of ward waste and the like in one room; trimless interior doors, a hard and durable wall material extending through and around the openings, the doors being checkpivoted at tops and bottoms; crematories for hospital refuse located beneath the boilers in the power house and accessible through the service tunnel at a lower level than and independent of the boiler house. In these retorts a normal temperature of 1,800° F. results from the use of the boilers; they may be operated without additional

help and at a negligible cost for fuel. The electrically propelled food conveyor, automatically controlled from the ward service pantry of the central kitchen, will within a few minutes carry food to any diet kitchen and signal its arrival. It may be returned to the starting place or sent to another floor by the nurses or recalled by the dispatcher. It must be remembered that this carrier travels vertically in an elevator and a lift as well as horizontally in the tunnel. This carrier has since been patented.

To understand the cost of municipal work re-

judgment, if not political importunity; that its present actual cost has been increased by some \$300,000, for which the city of New York has received no proper equivalent.

The location of the site has made trucking a large item of cost and added to the cost of labor in consequence of shorter hours. These expenses. as well as that above referred to, should be considered in judging of the aggregate cost as well as the \$110,000 spent in the landscape work or approaches. The entire hospital could have now been completed for \$3,700,000, or at a cost of

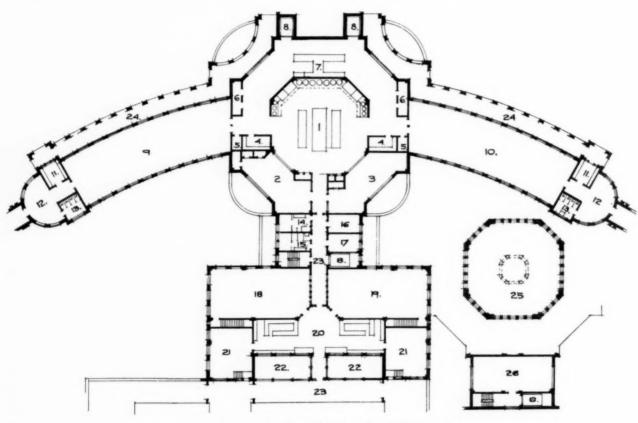


Fig. 7. Sea View Hospital-Dining hall and kitchen building.

- 1. kitchen
- scullery. diet kitchen
- bread rooms linen closets
- dish pantries serving pantry (patients')
- elevators.
 dining hall (men).
 dining hall (women).
 wash rooms.
- coat rooms.
- toilet rooms 14, toilet (men servants).
- 15. toilet (women servants).
- upper part of blending machine room.
 range coal storage.
 dining hall (men servants).
 dining hall (women servants).

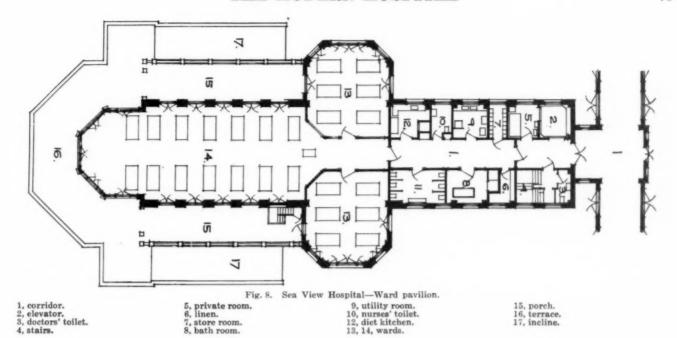
- 20, serving pantry (servants' dining rooms).
- 21, officers' dining rooms.

 - 22, light court 23, corridors. 24, porch.
 - upper part of kitchen. 26. flour storage.

quires a knowledge of the method of appropriating money and the political conditions that obtain and operate favorably or unfavorably for economical progress. Many excellent reasons have existed in New York to require economy. It is, however, unfortunate that its board of estimate and apportionment, with which lies the power of appropriating money, may not take the initiative in providing funds for the intelligent continuing of work except as such funds may be requested by a commissioner. It is probably due to this condition more than another that the hospital is not entirely completed, and also to a lack of proper

\$3,650 per bed. Six hundred beds may be added at a cost of \$1,250 per bed. The extras proper do not exceed \$1,200, and, including alterations and additions required by the officers in charge, the increase in cost is not more than \$9,000.

It is well to correct here, and finally, as Mr. Raymond B. Fosdick has publicly done, the report attributed to him when he was commissioner of accounts, and quoted and published on page 29 of "Six Years of Municipal Research for New York City, Record for 1906-1911." The initiative in the investigation referred to may not be attributed to the commissioner of accounts. No sav-



ing was effected, but an actual increase in cost of \$300,000 resulted, due to a delay of some nine months and the temporary changes in the drawings and specifications made. This investigation is now presumed to have been instigated through political maneuvers, which misled even such an accomplished and experienced executive as the late Mayor Gaynor.

It is, I think, a great economy to provide for convalescence residence, so that under proper observation the patient may be fed and exercised until an actual condition of health is established before discharge. This we know is not now done, and as a consequence the hospitals contain innumerable cases that are returned again and again and finally settle down as incurables. The

expense of their care and the economic loss of their efforts is incalculably great.

In hospitals there is a very large number of sufferers from incipient tuberculosis complicating other more acute illnesses. There are also many patients in our hospitals and clinics who have complicating surgical conditions in addition to their tubercular infection. At present these patients are either placed in wards with the nontuberculous, where they may further spread the infection, or are placed in tubercular wards where there are no adequate facilities for treating them, or their infections are supplemented by their neighbors. Sea View aims to correct this condition and prevent these many potential infections, which in itself is a large economy.

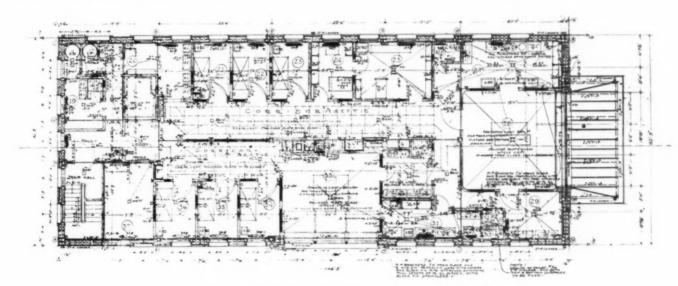


Fig. 9. Sea View Hospital-Second floor plan, surgical pavilion.

- 19, nurses' dressing room.
- 20, surgeons' dressing room. 21, 22, 23, patients' aseptic room.
- manufacturing room.
- 25, sterilizing room. 26, toilet. 27, wet sterilizing room. 28, aseptic operating room.

- 29, surgeons' room. 30, toilet. 31, wet sterilizing room. 32, surgeons' room
- 33, septic operating room.
 34, 35,36, patients' septic room.
 37, x-ray room.

The corridors, walks, lawns, and gardens are all useful for diverting and entertaining the patients, and, if they will effectively assist in causing them to remain contentedly until their disease is arrested or cured, they will serve a very useful end.

If the hospital purpose of Sea View is intelli-

gently conceived, then the medical profession should support it and oppose its diversion for use as a sanatorium for pulmonary tuberculosis, and appeal to the incoming city administration, from which a high plane of city government is anticipated, for the assistance necessary to the culmination of the hospital's purpose.

THE GERMAN HOSPITAL-ITS RELATION TO STATE AND PUBLIC.1

Insurance Laws Have Greatly Increased Demands, But Expenses Have Grown Amazingly—Danger, That Incidents of Management May Overshadow Real Purpose.

By PROF. DR. GROBER.

PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF JENA.

I FIRST want to thank the president and the members of the British Medical Association, and especially the members of the Section of Medical Sociology, for extending to me the honor of an opportunity to speak to you on the development of the German hospital in connection with our insurance legislation.

My discussion of this subject will be somewhat difficult because, first, the organization of the German hospital is totally different from the English, and, second, because England is just beginning to introduce legislative insurance. As it would be rather tedious to define in my paper the entire construction of the German social insurance, it is necessary that I explain the meaning of at least some of the words used in connection with the system.

"Krankenkasse" is that board of insurance in which the working people with a certain income are obliged to be insured against acute illness lasting from six to twelve months.

"Versicherungsanstalt" is that board of insurance in which people are insured against permanent illness, invalidism, and senility. The complete titles are "Landesversicherungsanstalt" and "Versicherung gegen Alter und Invalidität."

Besides these boards, working people are insured in the "Berufsgenossenschaften" against accidents with which they may meet in their work.

The social insurance in Germany, especially the insurance against illness, has led to an exceptional and unexpected increase of the demands for treatment and nursing in hospitals. Formerly only few people who were dangerously ill could pay the fees for their stay in hospitals. Now the introduction of the social insurance has so increased the funds of the Krankenkassen, Versicherungsanstalten, and Berufsgenossen-

schaften, especially of the larger ones, that in such cases they can pay for their members without difficulty. People who were formerly slightly ill could not think of going to a hospital, but now the Krankenkassen prefer to send these patients to the hospitals on account of lack of proper care at home, and the patients themselves are very anxious to go to such an institution.

The social insurance against invalidism and accidents has also increased the demand for hospital treatment. It sends people asking for help as invalids to the hospitals to be examined, as well as those who may regain through careful treatment their ability to earn a living. The hospital is expected to give them this careful treatment because of more systematic medical attention and better control of hygienic surroundings than in treatment at home.

The number of hospitals has consequently greatly increased, and also the number of beds for the sick, and especially has there been an increase in the number of patients treated in the hospitals. The following data are given on the hospitals of Prussia from 1877 to 1910: the number of hospitals has increased from 888 to 2,314 (300 percent), the number of beds from 37,039 to 160,434 (400 percent), and the number of hospital patients from 211,060 to 1,304,641 (700 percent). This shows that today the services of hospitals are used to a greater extent than formerly. The beds are constantly occupied, because also people who are only slightly ill are received. In 1877 for every 10,000 inhabitants of Prussia there were 142 beds and in 1910 there were 405 beds; in 1877 81 persons out of every 10,000 inhabitants were treated in hospitals, and in 1910 330 out of that number were treated.

About five years ago experts declared it to be necessary that five beds be provided for each 1,000 inhabitants in cities of more than 100,000 population. As the demand for hospital treat-

¹Elaborated for THE MODERN HOSPITAL from a paper read before the British Medical Association, Brighton, August, 1913.

ment is constantly increasing, this number would not be sufficient today, especially not for cities with industrial populations or for those whose population is obliged by law to participate in social insurance, and it is a fact that in the large cities of Germany we hear every day complaints about the lack of beds. In many hospitals the patients are lodged in overcrowded rooms. Smaller cities need about four or five beds, and country towns three or four beds, for each 1,000 inhabitants, except where unusual conditions may make more beds necessary. A large country district will certainly fill the hospital of its single small town frequently to the utmost. So we are obliged to conclude that legislation for insurance in Germany has increased and is still increasing the demand for hospitals and beds.

The German law makes a distinction between public and private hospitals. The public ones are usually maintained by corporations and establishments specified by legislation, and the private ones by single individuals, private establishments, or boards. To the former belong, therefore, those that are maintained by the empire, the federative states of Germany, the provinces of Prussia, the other larger states, and by country districts and towns, and also by the Krankenkassen, Versicherungsanstalten, and Berufsgenossenschaften. For instance, the German empire is the owner of all the hospitals in the German colonies, and the state of Prussia controls the university hospitals. usually called clinics, the large Charité in Berlin, and the military hospitals. Provinces of Prussia own the provincial lunatic asylums and the provincial midwifery schools. Districts or country boroughs of Prussia have erected many smaller hospitals of their own, and especially are the towns owners of many middle-sized and of some large hospitals. It is a fact that the development of German industry and trade and the growth of wealth in our country have enabled the towns to attend to the care of the suffering in a more complete manner than heretofore. The progress of the German hospital is due besides to the increasing demand for hospital treatment, to the effects of insurance legislation, to the growing wealth of Germany, and to the sound judgment of the town magistrates in hospital affairs.

Numerous hospitals belong to boards of insurance, Krankenkassen, Versicherungsantalten, and Berufsgenossenschaften, which receive only those persons who are members of their respective institutions. Some other hospitals belong to charity institutions, erected in former days, of a clerical or confessional character. These often undertake nursing and housekeeping by their own members.

There are also private hospitals with commercial interests, which interests are not, of course, connected with the public ones. These private hospitals belong to individuals—for instance, to a physician, to joint stock or limited companies, or to other registered corporations, or to several physicians or other persons, as, for example, private nurses.

The essential and practical difference between these two kinds of hospitals is the requirement from the private one of a concession from the government. Before the concession is granted, the owner or undertaker of such an enterprise, —i. e., the manager—is examined concerning his capability of managing a hospital. The public hospitals do not need such concessions, but they, as well as the others, are governed by rules enacted by legislation concerning building, furnishing, and conducting a hospital, which will be discussed later. So we can see that in Germany nobody is excluded from erecting and conducting a hospital, provided certain specified conditions are complied with. There is a great freedom in this matter, but the conditions are exacting and are strictly maintained. A monopoly does not exist, and the state has reserved only the right of inspecting the hospitals.

The chief duty of hospitals is to cure the sick; to treat and nurse those who cannot recover is only secondary. In former centuries only the latter service was the duty that was performed, and especially treating and nursing the incurable, affected with the terrible diseases of the middle ages, were considered of great importance. Many of the well-fitted and celebrated hospitals in Germany today have risen from those infirmaries that were erected years ago for the care of the destitute sick and confirmed invalids.

Nowadays the duties of hospitals have increased. The social insurance managements very often need the help of hospitals to determine whether a patient is really incapable of earning a living, and, if incapacitated, to what extent this condition may be caused by illness, invalidism, or accident. The number of patients sent to some of the hospitals only for this purpose is very large. I know of state and city hospitals in which more than 50 percent of the patients are staying only to be carefully examined. The result is a very lively change in the supposed condition of the patients.

But the town hospitals especially are very often obliged to perform some other important duties; for example, they must receive any kind of unconscious people found on the street, act as organs of the sanitary policy, and furnish ambulance service, in addition to which persons who may be suspected of injuring themselves and require observation are sent to the hospital. There exists the general opinion that the town hospital is the best and at all times the ready helper in every need of sick or mentally weak persons.

It is my opinion that, apart from these more prominent duties of the hospitals, there are others, generally not considered so necessary or so desired, but of great importance to the public health. Besides curing, nursing, examining, and safeguarding patients, the hospital must educate the inmates how to lead a healthy and proper life and how to avoid the increase of present and the occurrence of future illness. The patients in the hospitals should be taught cleanliness of body and clothing and the use of suitable food, so that the example set may be followed in the home. Of course there is the danger of "spoiling" by this system that class of people for which the hospitals are especially erected, and therefore luxuries in hospitals must be strictly avoided.

The cost of building, furnishing, and maintaining a hospital has increased considerably in the last thirty years. The reason for this increase is not entirely due to the introduction of social insurance. It is caused, first, by the increasing value of ground, the increased price of building material, and the advance of the wages of workmen; and, second, the improvements in technical fittings, especially of heating, ventilating, lighting, and other sanitary arrangements, have greatly increased the cost of these items, and the installation and maintenance of these improvements have added to the general cost. What is saved by machines in place of manual labor-i. e., by less wages-is spent on the investments themselves. There is, however, the advantage that this work is properly and hygienically done.

The esthetic demands of the architects, the competition for pleasing the eyes of spectators and patients, have also considerably increased the cost of these institutions. In many cases hospitals have become a characteristic sign of an increased financial, practical, and artistic power. As in olden times cathedrals were erected as monuments of culture and as memorials for the future, today wealthy cities erect with the same idea their beautiful and expensive hospitals. This voluntary increase of cost can, of course, be easily avoided.

Thirty years ago in Germany the entire cost of building a hospital, per bed, amounted to not more than 3,000 to 4,000 marks. Today for hospitals in large cities at least twice that sum is needed. For smaller hospitals 5,000 to 6,000 marks may be sufficient, which will include ground and furniture. The reason for the difference in cost be-

tween large and small hospitals is evident, because the former are usually erected in cities where ground is valuable and wages are high. A greater number of patients require more rooms, and therefore the technical arrangements are more complicated, in addition to which there is needed a larger supply of medical appliances for the greater variety of cases. It is, however, incorrect to assume that the more elaborate medical supplies have materially increased the cost of the maintenance of hospitals. There are only a few accessories that are costly, such as x-ray apparatus, radium, and recently mesothorium. Taking care of the medical appliances and keeping them in proper condition requires, it is true, some expense, which is necessary because there are some delicate instruments and apparatus on the accurate operation of which very often depends the fate of the patient. The principal causes of the present increased cost of the management of hospitals are to be found in the greater number and higher salaries of the personnel and in maintaining the technical arrangements. Besides this, the more exacting requirements of the patients, especially concerning the diet, add to the cost, as the rising prices of food are distinctly felt.

The increased cost of the hospitals prevails throughout Germany in the same manner. All the patients have to pay for their maintenance. If they themselves are not able to pay, and they are insured in a board of insurance—as "Krankenkassen," "Versicherungsanstalten," or "Berufsgenossenschaften"—the latter pays for them. Such is the case with most of the hospital patients in Germany today. If a poor patient is not connected with any board of insurance and is in need of hospital treatment, the native or home district is obliged to pay for him. Every German who for two consecutive years has lived in the same place acquires the right to have this place his home or native place-pay for him when necessary.

Only very seldom and to a small extent can hospitals provide a charity bed. In such cases it is a question either of recourse to some old or new funds, or of free beds in the university clinics, which latter will receive specially interesting cases for the instruction of the students or for scientific examination. But these means are very limited, and in many hospitals they are missing altogether.

The government, the courts of justice, and the army can also send patients to hospitals, but they must pay for their maintenance. Special and reduced prices are arranged for patients from institutions that send them regularly, as the Krankenkassen, Versicherungsanstalten, and Berufsge-

nossenschaften. It is a general principle that native patients shall pay less than strangers. The prices for staying in a hospital vary according to the kind of room and board, but as a rule the prices in hospitals in any one place are nearly alike in order to avoid unnecessary competition.

Most of the patients are placed in the third class, where they share a large room or hall with many others, the number of occupants varying according to the size of the room. The price per day in the third class is from 2 to 4 marks. The price per day in the first and second classes is usually from 6 to 12 marks, but in some hospitals the prices are higher. Very often specially expensive items are charged extra, as, for instance, examination or treatment with x-rays. In the higher classes a physician's fee is generally also charged extra. First- and second-class patients have a room with one bed and not more than two beds, and there is also a difference in the meals for these patients.

The income mentioned is not, however, sufficient to equal the expenses, and most of the state and town hospitals receive assistance from an extra allowance taken from the taxes of the state and town. This allowance varies greatly with different hospitals. Some hospitals require only a few pfennige per day per patient, while others require from 1 to 2 marks. The amount of the allowance depends on various conditions—on the number and fees of the persons forming the medical, nursing, and managing staff of the hospital, the prices of food supplies, the care of furniture and medical apparatus, and generally on the economy of the management. It is understood that the rate per day paid by the patients regulates the amount of the allowance. Of course it may happen that an indigent inhabitant of a town is sent to the hospital, in which case the town must bear the daily rate as well as the daily allowance. It is very much to be desired, and there is no urgent objection against the proposition, that the daily rate be raised so that in future all hospitals can be conducted without any additional allowance. In Germany it is not customary to make regular charity gifts to hospitals, and when a gift is made it is only in a very modest way. I have known in only one case such gift to be of a significant amount. More frequently bequests of various sums are left by will to hospitals, but these are usually specified for a certain purpose—for charity beds, or in some cases for the erection of a pavilion or barrack. It is customary in some hospitals for the first- and second-class patients, when they leave, to give a small sum to be used for Christmas presents or for general use.

As the adjustment of the hospital budgets has

become so difficult, numerous methods have been proposed to reduce the expenses. General economy has been attempted, but without permanent success. It has proven impossible to erect good hospitals of a simpler construction, as by that plan justice cannot be done to the technical, hygienic, and medical requirements necessary for the welfare of the patients.

Since 1911 another method to reduce expenses has been recommended. There are usually many patients in the hospitals who do not need the complicated and expensive arrangements which are required for persons who are seriously ill. The former are those who are only slightly ill and invalids with chronic diseases, and it is the intention to send these patients, after a careful examination of several days in the chief and centrally located hospital, to smaller establishments in the country. Especially convalescents and persons affected with anemia, rheumatism of the muscles, chronic diseases, and other similar cases are considered patients who should be sent to the latter more home-like hospitals. At the meeting of the German Association of Public Health in Elberfeld in 1911 this plan was first discussed.

As has been mentioned, the state has reserved the right of inspecting the hospitals. In some federative states of Germany legislation governs the building, outfitting, and managing of hospitals. The laws are not the same in the various states, but the laws of Prussia have been generally followed. The Prussian regulations in this matter are very strict and of an advanced character, especially those revised in 1911. The laws differentiate between small and large hospitals, and between those which receive any kind of patients and those which take care of special diseases. The regulations also apply to the character of the hospital grounds, to the space between the buildings, and to the separation of the various kinds of patients.

The German city hospital is usually a general There are no special fever hospitals for infectious diseases, and a patient afflicted with a contagious disease is sent at once to a separate pavilion or department of the general hospital specially fitted for that purpose. Every hospital must have rooms for temporary examination of suspicious cases whose nature cannot be at once determined. The size and height of the ward rooms, the arrangement of the stairs, and the construction of walls, windows, and doors are definitely specified. Every ward must have a day room and every hospital must have sufficient ground for a garden. Ventilation, heating, and water supply are carefully considered. A certain number of bath rooms and rooms for laboratory

examinations and for operations are required. The housekeeping apartments are completely separated from the ward rooms. Larger hospitals must have two special buildings—one for the housekeeping arrangements, kitchen, and wash rooms, and one for the disinfection rooms and mortuary.

Special rules are provided for certain hospitals—as institutions for lunatics, children, cripples, inebriates, and tuberculous people. If a comparison is made of the present regulations for hospitals with those of ten years ago, it will be seen that these regulations have followed the progress of medical and hygienic science. The hospital and its field have been the subject of many medical and bacteriological examinations, and considerable literature has been prepared on the hygienic conduct of hospitals.

Increasing the size of the hospitals has caused the number of clerks and officials connected with these institutions to grow, and in some cases there appears to be some danger that the management dominates the medical branch, making the positions of the physicians very unpleasant and sometimes unbearable. As the chief duty of the hospital is to treat and cure patients, the physicians should have a voice in the management of the hospitals, particularly as public opinion is disposed to hold them responsible for the proper conduct of the institution.

The increased number of beds requires more nurses, and this need of additional nurses cannot be fully met for the reason that, in consequence of woman's "emancipation," the inclination to become a nurse has greatly diminished in Germany. It is usually estimated that one nurse can attend to 10 beds, but in many hospitals a nurse is required to attend twice that number. The social classes from which the nurses come vary greatly. There are some sisterhoods of a religious character that work solely for charity and others that conduct their affairs on a financial basis. Some large cities have their own sisterhoods connected with their hospitals. The law requires those who are to become nurses to be taught in a school for nurses that is authorized by the state, and nurses who have been graduated from such a school are registered and are then prepared to nurse. A certain wealthy German city pays one nursing nun 80 marks per annum, including board and lodging, while another city pays a member of its own sisterhood, operating under similar conditions, ten times that amount. It is the intention to equalize these rates where the conditions are practically the same. In some hospitals the nurses are required to perform also the duties of servants, while in other hospitals both male and female

servants are provided. In some places services are rendered by members of brotherhoods in addition to those of the sisterhoods, but not always on the same conditions or according to the same examination.

To be received in a hospital in Germany is no longer considered an act of charity as it was in former days, but is in accordance with arrangements made between the management of the hospital and the patient, either the latter paying for the services rendered or the expense is borne by the organization of which the patient is a member -the "Krankenkasse," "Versicherungsanstalt," "Berufsgenossenschaft"-or his home town. The increasing wealth of the people and the general advance in the mode of living, together with a feeling that certain rights are conveyed by the method of assistance provided, have a tendency to enlarge the demands of the patients, who have been in a measure "spoiled" by the new arrangement. These demands refer, as previous stated, especially to the diet, but refer also to the bedding, clothing, furnishing of the rooms, and, in fact, to the entire hospital management, or, as it is called in Germany, the "order of the house"—Hausordnung. This demand for luxuries in certain hospitals erected and maintained for the working and insured classes has extended beyond reason. Therefore, while it is proper for the public to be interested in the management of the hospitals, it should not, however, control these institutions. Hospitals should not, as formerly, be closed to the public, except in cases of infectious diseases, and the public should be acquainted with the method of management of the hospitals and the mode of life of the patients. It is advisable—and I have proven the efficacy of the step-to speak in public on the conditions prevailing in hospitals, as such course will have a tendency to stop the criticism and censure that has been inveighed against these institutions. The development of the German hospital has demonstrated that it would be advisable for the hospital management to have charge of the sanitary and hygienic conditions in the district, and thus become an important factor in the improvement of the public health.

The chief features of my discussion may be summarized as follows: the social insurance in Germany has improved the service of the hospitals by increasing the demand for hospital treatment; the number of hospitals is greater, and consequently there is a larger number of beds and more patients are treated. Some of the boards of insurance have built hospitals of their own without encountering any difficulty, so that our experience in hospital matters has been greatly increased. The progress in the management of

hospitals is due in a great measure to the advances made in medical knowledge, in bacteriology, and in promoting public health, and also to the active interest taken in hospitals by the families of the emperor and other sovereigns. The regulations provided by the state for the erection, furnishing, and management of hospitals has prevented a monopoly in the conduct of these institutions.

The evolution of the German hospital has not

yet come to an end. It may be still too bureaucratic, but the change so far is very commendable. There would be a vast improvement if the hospitals were placed to a greater extent under the supervision of the physicians—especially under those gifted and trained for that purpose—concerning which point a few good examples are found in the United States and Austria, but not generally in Germany.

ADMISSION OF PATIENTS, HISTORY TAKING, AND SUBSEQUENT CARE.

Technical Operations of Receiving, Examining, and Distributing Patients—Forms Employed—Care of Effects—Division of the Work.

BY KARL H. VAN NORMAN, M. D.
ASSISTANT SUPERINTENDENT JOHNS HOPKINS HOSPITAL.

PAPER III.

PATIENTS are admitted to the hospital through the admitting office in the administration building. The regular hours for admission are 10 a. m. to 12 noon and 2 to 4 p. m., although emergency cases are admitted at any hour of the day or night. The latter, if they apply at the administration building, are admitted through the admitting office. If first seen in the out-patient department, they are sent directly to the ward after the admitting officer has been notified by telephone from the dispensary and given instructions to what ward the patient is to be sent.

The examination of patients for admission is done in the out-patient department and in an examining room adjoining the admitting office, the majority being examined in the former place, where to each who requires ward care is given a printed form or admission blank, filled in and signed by the examining doctor. This slip must then be presented by the patient at the admitting office, where it is countersigned by the admitting officer before the patient is sent to the ward. Obviously, patients for the private wards are not physically examined, but are seen at the admitting office, where the blanks are filled out by the admitting officer.

For every patient admitted through the admitting office the admitting officer fills out a printed form, which states the date and hour, name, address, birthplace, age, sex, occupation, civil state, race, names of nearest relatives or friends, to what service the patient is assigned, the ward, and the rate per week. At the bottom of this slip is the payment guarantee, which is signed by the patient or whoever is to be responsible for the payment.

For every admission an entry is made in a register in the admitting office, a note being made of

name, address, by whom admitted, hour and date, diagnosis, and action taken.

Public ward patients, before and after seeing the admitting officer, wait outside the admitting office on seats provided for that purpose. Private patients wait in the reception room of the hospital, a short distance from the admitting office. When the patient enters the admitting office, the admitting officer notifies the front office, which at once notifies the ward to which the patient is going and the ward orderly is sent. A wheel chair is always brought by each orderly for all cases except ambulance cases. The latter are carried from the ambulance and placed on a wheel stretcher in the admitting office, and are wheeled thence direct to the bed, where they are undressed and have temperature, pulse, and respiration taken. They are also bathed if the ward officer so orders. He is always summoned when a patient is taken to his ward. All other patients are placed in an easy chair in the hall of the ward, and treated in like manner. If they have no fever, the routine order is that they shall receive a tub bath before being put to bed. Those patients with fever are at once put to bed and further treatment depends on the ward officer's orders.

The patient's clothes and valuables are listed by the nurse in a book kept on each ward for this purpose. The clothes are placed in lockers off the ward, but all valuables and money are put in a large envelope with a printed list of valuables on it, where each article is checked off. The clothes are signed for by both the nurse and the patient, and the valuables and money are signed for by the nurse, patient, and clerk in the business office, who receives the valuables from the nurse and deposits them in the vault.

The routine care of patients is, in general, the

same on all the wards. There are some differences in the various services which will be noted later, but the plan followed in the medical service will serve as a general scheme.

The history is taken and first physical examination made by a fourth-year student, who serves as a clinical clerk. If the patient is very ill, the intern (ward officer) makes the first physical examination, with the student in attendance. After the history has been taken by the student it is reviewed by the intern, who, if he has not already made the first physical examination, makes one now. He dictates to the student the result of this examination, which becomes a part of the history. The student, after the history and examination are finished, does a complete blood count and takes the blood pressure. He has also to examine the stool and sputum when obtained. The first urinalysis is done by the intern, the subsequent by the student.

The resident physician or his first assistant sees all patients daily. The latter makes rounds for teaching once a week, the former twice a week. The chief of service, or one of his assistants, visits the patients daily and makes ward rounds for teaching twice a week. All the interns report to the resident or assistant resident each day at 7 p. m. on the status of their wards.

Notes on the histories are made by the chief of service, his associates, the resident, assistant resident, intern, and students. These last make note of all laboratory findings, or of special examinations required by the resident. The intern makes a written note of the condition of the patient twice a week, and daily if the patient is critically ill. The assistant resident or resident, or both, make notes on admission and thereafter as indicated. The chief of service usually makes a note each time he sees the case.

The chief of service, resident or assistant resident always sees a patient before discharge and notes the condition. All discharge orders are checked by the resident.

Blood, spinal fluid, urine, stool, and sputum cultures, Widal, Wassermann, and tuberculin tests, and x-ray and electro-cardiagraph examinations, etc., are made by men in charge of special departments at the request of the resident. Reports of these special examinations are sent in writing to the ward and incorporated in the history.

A "history meeting" is held once a week. At this meeting the history of each patient discharged during the week is turned in by the intern. The resident fills in the final diagnosis and the result of treatment. The case is then discussed. Later all the histories, filed chronologically according to the date of admission, are bound in book form in consecutive series of fifties.

With private patients the routine is naturally different. As students are not allowed in the private ward, the intern always takes the history and makes the first physical examination. The resident later repeats this and records it in the history, and further examinations and notes are made by the patient's private physician.

The surgical service differs from the medical insomuch as the first physical examination is done by the intern with the student, and the second physical examination is always done the same day by the resident or assistant resident. The resident or assistant resident makes rounds through all the wards daily. This service has on each ward a second assistant resident, who is senior to the intern and who supervises his work.

Notes of the operation are made by the first assistant, except in cases of peculiar interest, in which the resident himself makes the report. To save time, he uses a dictaphone. A typist later records in the history the report of the operation as recorded in the dictaphone.

In the obstetrical service the history and general physical examination are made by the intern and assistant resident. The assistant resident makes a record of the examination of all normal cases, and leaves the notes of all abnormal cases to be made by the resident or chief of service. Rounds in the obstetrical wards are made twice daily by both resident and intern. Before being discharged, every obstetrical patient is examined by the resident or chief of service and a note of the present condition made.

The gynecological service is quite different from the others, as no students are permitted on the wards, except twice a week on rounds with the associate chief of service and resident. The history is taken by the intern, who makes the general physical examination, but not that of the pelvic organs, except in married women. In all unmarried women the pelvic examination is made by the resident. The history notes on admission and discharge are made by the resident or assistant resident, and the post operative notes by the intern. The records of operations are written by the first assistant.

Throughout the entire hospital all doctor's orders are put in writing in books kept for that purpose. Each order is written with an indelible pencil by the nurse and the doctor signs it. The date and the hour of the order given are always specified

In emergencies the doctor may give orders over the telephone, but these must be recorded in the book and later signed by him. At night messages sent to doctors are written in the book and the book is sent by a messenger to the doctor's room. He writes his order and signs it. All these books, when filled, are filed as permanent records.

The method of calling the resident staff is by means of bells in the older part of the hospital and telegraph tickers in the three new buildings opened during the past year. These bells and tickers are present in all the wards and in the administration building, where the resident staff quarters are. The buttons for ringing these bells are in the front office, where one operator can in a few seconds sound any of the signals. Each doctor has a "bell" or signal—such as one ring followed by three rings, etc.—and when he hears his call he at once telephones the front office to ascertain why and where his services are required.

All financial arrangements are made with the patients when they come in, except when too ill to be questioned. Under the latter conditions the admitting officer visits the patient later in the ward or sees his friends or relatives, and thus settles the terms of treatment.

Patients desiring admission who are too ill to come to the hospital for examination are seen at their homes by the intern who is on "extern call." The visit is arranged by the admitting officer, who instructs the intern before leaving as to the nature of the case. After seeing the patient, the intern reports back to the admitting officer by telephone, if urgent, or on his return to the hospital. If necessary, the ambulance is at once sent, but the question of admission rests with the admitting officer.

Visiting in the wards is permitted on Tuesday, Thursday, and Sunday from 3 to 4 p. m., and on Wednesday and Friday from 6:30 to 7 p. m. Each patient is allowed two visitors in the afternoon and one visitor at night. Visitors are admitted only on presentation of "visiting cards," which are issued in the admitting office for each patient who is accompanied by a friend or a relative, or mailed to the latter if the patient comes alone. The tickets are transferable from day to day, though not for the same day. To prevent reduplication of cards, an entry is made in the admitting register when the cards are issued. Private patients may be visited daily from 10:30 a. m. to 12 noon and from 2 to 8:30 p. m. No cards are issued, as the number of visitors is not limited, except by the physician's order. The enforcement of the rule of the hours for visiting is left with the head nurses.

All inquiry and information of the condition

of patients comes to and is given out through the front office. When the inquiry is made, the office calls the ward by telephone and obtains the report of the patient at that time. No outside call asking for the condition of a patient is permitted to go through direct to the ward, except when the call is for a specified doctor on the staff.

When a patient becomes critically ill, a "critical condition form" is filled out by the doctor in charge of the patient. This slip is dated and the hour specified, and is immediately sent to the front office, and the nearest relative or friend is notified by telephone or telegraph directly or through the police department. The clerk in the front office who sends out this notification signs the slip, noting the hour at which the information was given. This slip is then taken to the superintendent's office, where it is filed.

When a death occurs, a "death notice" is made out in quadruplicate by the nurse in charge of the ward. These notices specify the exact hour of death and are sent at once to the superintendent, the superintendent of nurses, the front office, and the doctor in charge of the patient. The notice sent to the superintendent is filed. On receipt of the death notice the front office immediately notifies by telephone, telegraph, or through the police department the nearest relatives or friends.

Permission for an autopsy is obtained by the doctor who has been in charge of the patient or by the resident (or his assistant) in charge of the service. No autopsy can be performed until the post-mortem examination form is made out. This form states (1) that the body of the deceased has been placed in the morgue, stating the day and the hour, and signed by the nurse in charge of the ward where the patient died; (2) that permission to make the examination has been granted the hospital by the nearest relative, which permission is certified by the doctor who had charge of the patient or the resident or assistant resident of the service, and is approved by the superintendent or assistant superintendent, without whose authorization no autopsy can be performed; (3) that the body has been delivered after the autopsy to the undertaker, who signs for receipt of same, stating date and hour.

Mention has been made of the electro-cardiograph. This instrument is in a special quiet room in the basement of the surgical building, and from it wires are laid to some of the medical wards in the hospital. In this way electro-cardiograms can be taken on many patients without removing them from the ward.

The front office has been referred to a number of times. The staff here consists of two clerks, three telephone operators, and a messenger boy. All except the messenger are young women, and the chief clerk has charge of the office. The messenger is on duty from 7 a. m. to 7 p. m., and the clerks in relay from 8 a. m. to 7 p. m. The telephone operators are on duty in relays from 8 a. m. to 9:30 p. m. At night the office is in charge of a

man whose hours are from 7 p. m. to 7 a. m. After 9:30 p. m. he also takes charge of the telephone switchboard.

The above is a more or less brief outline of the admitting and ward organization throughout the hospital.

CAUSES OF AND REMEDIES FOR UNSATISFACTORY HOSPITAL ARCHITECTURE.

Architects Should Have Expert Advice of Hospital Administrators—Unqualified Trustees Should Also Have Expert Counsel—Inexperienced Architect Not Necessarily Incompetent.

BY T. J. VAN DER BENT, OF MCKIM, MEAD & WHITE, NEW YORK.

THE planning and construction of a modern hospital is a very intricate problem. The unsatisfactory results obtained in many new structures, and the severe criticism in several instances, might be prevented, or reduced to small details and unimportant features. It needs the careful study of the causes to bring forth the proper remedies. The principal reasons for failure of complete, or reasonably complete, satisfaction are as follows:

- 1. The selection of an incompetent or inexperienced architect.
- 2. Insufficient knowledge in matters pertaining to the needs and requirements of the new building on the part of the building committee, the directors, trustees, etc., or those directly in touch with the architect.
- 3. The lack of unanimity in deciding different questions of management and medical problems, which influence the planning and construction.
- 4. Changes in personnel of the institution in the higher as well as the lower offices. In this connection, often lack of harmony between different departments.
- 5. The lack of a complete program before the site is obtained and plans are started for the new structure.
- 6. The failure to appoint a competent medical adviser at the same time when the architect of the building is selected.
- 7. Judging of competitive plans for a proposed new institution without proper data for comparison.

I.

The selection of an incompetent architect is a rare occurrence, even granting the possibility of undue political or social influences. The great responsibility placed on directors or trustees of a hospital will make them hesitate to select any but a well-known and responsible architect. Furthermore, without trying to compliment the

American architects, the general average of architects in the United States is above the general average outside of the United States. The architect-builder—a very common personage elsewhere -is a great exception. The two occupations cannot be associated satisfactorily. Here, where scandal and graft are brought before the public and advertised more than in any other part of the world, this has been felt to such an extent that no reputable architect would be inclined to experiment. The combination of architect and builder in this country is indefensible. The selection of an inexperienced architect is more frequent. Hospital building is not an every-day occurrence in architects' offices, and only during the last few years has hospital construction been made a special study by a comparatively small number of architects. Special study is essential to successful planning. It will be difficult to find architects experienced in hospital construction in many of the small communities, and it happens very often that there a local architect is chosen who is entirely unprepared and inexperienced in this type of building. The usual performance of making a trip to Europe, afterwards through the United States, and in the shortest time possible visit numerous hospitals, leads to the most undesirable results. It requires careful comparison before being able to judge the good or bad features of existing institutions. A hasty examination of various institutions will result only in an extensive collection of undigestible data-undigestible, while the preliminary study of hospital requirements is lacking. The result obtained in these instances will be a hospital with features copied from different sources-some good, some bad, according to the impression made by the "showman" who leads the visitor around and shows off his preferences and advocates his special features. A number of the newer American hospitals are of this type—fragments of different

European and American institutions put together without due consideration to the local conditions or requirements. If the architect chosen is a competent architect, although inexperienced in hospital building, his mistakes will never be fatal and beyond repair as long as he has obtained the assistance of the proper hospital authority. Who this adviser or authority should be, and how much his assistance should amount to, will be considered later. Inexperience will result in the selection of less satisfactory materials, mistakes in small details, extravagances and unnecessary display, or gloomy, overplain, prison-like structures. The architect should not be required to judge professionally about the actual grouping of departments and buildings, the arrangement of rooms, the detailed requirements in the rooms, or the relative size. It is unjust to require that he know all about hospital management, the medical or surgical features of a hospital. One may as well ask that he be expert in civil, mechanical, sanitary, or electrical engineering, an able manager of a large kitchen and dining establishment, an experienced laundryman, a pathologist, a good physician, and an eminent surgeon. The study of each and every one of these professions is needed in hospital building. Justified, however, is the demand that the architect be acquainted sufficiently with the general work in hospitals, with the routine of the institution, with the general character of the greater number of diseases, and frequent or ordinary hospital cases. As to the knowledge of good hospital construction, only experience will teach the proper selection of materials and details, the selection of which is often made very difficult by the uncertainty as to what is more importantstrict economy or the conscientious carrying through of so-called sanitary and hospital principles. These last terms, "sanitary construction" and "hospital principles" are again so vague, and opinions among hospital doctors are so widely apart, that to this I shall have to return later.

Hospital planning is a matter of deep study of the requirements, the means and methods of management, which are in each case different. Existing buildings may serve as examples for details, but each new case has so many different conditions that copying from existing buildings is mostly a poor solution of the new problem. Where we do find new hospitals which show distinct individuality, where departures from the very ordinary lines are noticeable, we will also find on investigation a careful study of the especial wants and requirements, although the solution may not always be the most fortunate. The attempt to give a new solution to a distinctly new problem is there. This should be more encouraged

and less criticised. Slavish following of present hospital ideas—often fads—will not lead to great progress.

II.

The management of a hospital by a board of governors, trustees, directors, or similar officers. has the great advantage that it makes the hospital management practically free from political influences and political graft. If the choice of governors is carefully made, it is a most satisfactory solution of a difficult problem. It would be a step backward if this form of hospital government were to be abandoned and the benefits of its being free from politics thus lost. It would only come about through the attempt of the directors to do more than they are supposed to do about deciding matters outside of their proper sphere. These boards of directors, consisting virtually of men without medical, surgical, engineering, or architectural knowledge, will, from time to time, attempt to decide matters on these lines strictly beyond their grasp. They are not required nor expected to decide such matters. They have enough serious work in the general business management, the running of the institution, the careful study and planning of the financial situation. If matters are brought to them on which they lack knowledge required for a prompt decision, they should obtain expert advice. Having obtained this advice, they should follow it and not try to sway the opinion of their adviser. If the superintendent of the institution is a capable professional man, advice could and should be obtained from him. The appointment of committees, who often send in endless reports, and who are without decisive power, leaving the final decision to the directors or trustees, often placing before them the difficulty of choosing between different recommendations, is very unsatisfactory. A still graver danger is the presence in the board of directors of men who have some, although very limited, knowledge of certain of the subjects mentioned above. The opinion of such members is often taken for actual expert advice by the other members of the board. In fact, they are intrusted most times with the decision on such matters, although unequipped with knowledge of these scientific problems.

One of the greatest problems, that of the planning of a new hospital, should never be decided by the board directly. They should appoint a building committee fully acquainted with the problem and able to decide on all the questions which will arise. It is unnecessary that any of the directors should be members of this committee. This committee may consist of men chosen from the staff, the superintendent, or

capable men outside of the hospital. It should be small in number, and have full power on all matters pertaining to the planning.

The directors have in their hands three principal decisions—namely, (1) the general policies of the hospital, (2) the size of the new structure, (3) the total cost of the new building.

These three matters should be decided before plans are made; if possible, before the hospital site is chosen. The next step after these decisions is the appointment of an architect and the appointment of a building committee, or, if capable, the general superintendent may take charge of the planning and give all instructions to the architect about matters not strictly belonging to the architectural or engineering profession. The board of directors should decide only the final result—namely, the completed building plan.

III.

Confusion during the time of planning and building operations, dissatisfaction after completion, numerous changes during and after erection of the building, are caused by the lack of unanimity in decisions of the directors. If they were unanimous, even though they were wrong, the results would be satisfactory to themselves even though they were criticised by others. There would exist consistency in the entire work, and general principles would be carried through in as satisfactory a manner as possible under the circumstances. But if opinions differ on certain subjects and decisions are taken by a small majority, it usually happens that the opinions of the minority prevail at a later date when the work has been entirely or partly executed. Costly changes and unsatisfactory results must then be expected. Sometimes the proposed changes are of such a nature that they become practically impossible and prohibitive on account of cost. The entire planning of the building and the work of the architect—the innocent victim of the above circumstances-is then severely criticised. Entirely blameless, the architect may suffer serious damage to his reputation.

The policy of the hospital is the first and main guide for the planning, inasmuch as it locates the different departments, allots to them their respective areas of floor space and defines the method of administration, and all decisions thereon should be taken unanimously. If there are different opinions, they should be carefully "threshed out," weighed, and argued until such a unanimous decision is reached. If the directors were equipped with complete knowledge for these decisions, this should be a simple matter. If they are lacking in knowledge, they should leave these matters to a

more competent party and appoint a man as their adviser who does know and can decide for them. On matters of construction and plan, opinions usually differ still more. Architecture is one of the subjects on which everybody gives himself the right to have an opinion. On legal matters, one will listen to and follow the advice of a lawyer, on medical questions a doctor's opinion is taken, but, although entirely unfamiliar with the study of architecture, every layman has his own opinions on the work of this profession and desires to carry this opinion through, right or wrong. The layman seems to obtain his knowledge of architecture from some "Northeaster," while the architect's knowledge is obtained through many years of practice and after years of preparation and study. Proper instructions to the architect as to the wishes of the board of directors, or unanimous decisions on matters of planning and construction, are seldom, or never, given. Objections of some members to the arrangements in the preliminary plans are withheld or outvoted by others. Later, often too late, these same objections are raised again. Taking, for instance, one example at random-the location of the outpatient department. If once decided, and the building construction has progressed beyond the building of the rough walls, it is practically impossible to change the location without making the entire plan a patchwork. Numbers of similar cases can be cited. The location of kitchen, dining room, main entrance, private entrance for private patients, all are serious and principal questions on which a decision cannot be changed after plans have been started without upsetting the entire scheme and making a rearrangement or a new start necessary.

Birthrate In Germany Decreasing.

H. Fehling, in Zeitschrift fuer Geburtshuelfe und Gynae-kologie (1913, LXXIV, 68), writes that the decrease in the birth rate in Germany in the past forty years has been about 1 percent. He says that the infant mortality during the same time has decreased to about the same percent, or 20,000 infants per year have been saved. In view of these facts, alarm as to decrease in population would seem to be misplaced. No good to any country can result from its women giving birth to 20,000 infants per year to die in infancy. The infant mortality is still too high, and with proper attention to infant feeding and proper conditions of work, housing, and hygiene for mothers, and proper instruction, it could probably for many years be reduced sufficiently to more than compensate for the decreasing birth rate.

Bethlehem Hospital, London, was built in the thirteenth century. Later it became an insane asylum, and the name was contracted to Bedlam. It still is conducted as an asylum. That's where Roosevelt got his phrase, "an outpatient of Bedlam." The name has become a synonym for disorder and chaos.

MONEY SPENT ON HOSPITALS IS FOR CURE OF PATIENTS.

Follow-Up System the Only Way to Determine Value of Institution's Services—Accounts Must Include Death and Disability, Which Are Wasted Effort.

BY E. A. CODMAN, M. D., BOSTON, MASS.

THE central idea is that every product of a hospital is to a greater or less extent dependent on the result of the treatment to the individual patient. On your annual reports to your trustees you state with pride the number of patients you have treated. What you should take pride in is the high percentage of patients benefited. If your staff by their inefficient treatment of their cases benefit only 80 percent when they should have benefited 90 percent, the loss in efficiency is worse than if you wasted 10 percent of the hospital income by neglecting to purchase potatoes at a reasonable figure. And, yet, most hospitals make no effort to find out whether success has attended their treatment.

Another thing that you state in your annual reports is the cost per patient per day. Please realize, after you have carefully figured it out, that in order to obtain its real value it must be multiplied by 100 and then divided by the percentage of patients benefited. That is, if out of every three patients one was not benefited, your cost per patient would be \$4.50 per day instead of \$3.

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Did you ever add up the number of days that your staff wasted by being too busy to examine the cases on the first day of admission? Did it ever occur to you, superintendents of the hospitals, that you could afford to pay a good surgeon a good salary from this one extravagance alone?

Again, you speak of the average stay as sixteen days in the hospital. Take a hernia, for example. Is it economy to keep him one week or three? If your surgeons' aseptic technic is perfect, you can save thousands of dollars by discharging your clean cases in one week instead of three, but, if your technic is imperfect and you are getting septic wounds in 10 percent of your hernia cases, you lose money not only in proportion to your failure to obtain ultimate cure, but you are docked \$3 a day in all the clean cases you keep in unnecessarily long, and also \$3 a day for all cases prolonged by sepsis. Thus the aseptic technic of a large hospital is important enough for you to employ an expert bacteriologist to constantly follow it.

How many patients per bed do you annually treat? If your hospital is for chronic cases, the

number is small; if it is for acute cases, it is large. What is the cost of a thigh fracture? In this hospital, I suppose, thigh fractures are usually kept in bed about six weeks. At \$3 per day, that would be \$126. Would it not pay us to encourage some ingenious young man to invent an ambulatory apparatus for these cases and attend them at their homes? The hospital could probably afford to pay him \$1,200 a year to do this. As a matter of fact, such is the enthusiasm of youth, you could probably find some one to do it for nothing.



Products of the Massachusetts General Hospital, 1912.

Did you ever calculate what a case of chronic osteomyelitis costs you? I can show you records of cases here which cost hundreds and hundreds of dollars because they were inefficiently treated in the first place.

These instances may be multiplied by the dozen. Each disease has its negative value; it costs more to cure some than it does others. In our modern hospitals you will find the senior surgeons treating the easy ones, and the difficult ones handed lower and lower down.

The truth is that the system of asking the services of busy practitioners for nothing has almost outlived its usefulness. It is time that hospitals drove harder bargains with their staffs.

¹From a discussion of a paper on "Proposed Inspection and Standardization of Hospitals," read before the American Hospital Association at Boston, August 27, 1913.

The hospital position is necessary to the surgeon of today, and the hospital can demand of him more and more. Either he must be *made* to painstakingly treat the "lemons," or someone must be hired to treat them. They cost us too much under the present system.

You hospital superintendents are too easy. You work hard and faithfully reducing your expenses here and there—a half cent per pound on potatoes or floor polish. And you let the members of the staff throw away money by producing waste products in the forms of unnecessary deaths, ill-judged operations, and careless diagnoses, not to mention pseudo-scientific professional advertisements.

I hope that this association you have formed will give you strength and courage to speak up to your returning trustees as they come back, brown and good-natured, from seashore and mountains. Tell them that they are spending the money that is intrusted to them for a product which they give to the poor, and that it is just as much their duty to see that this product is sound and good as if it were a marketable article which they sell to the rich. Tell them that hospital trustees who do not examine into results to their patients do not audit their accounts. They should no more be allowed to give away death and disability to their patients than to sell worthless stock certificates.

Establish a follow-up system. Recommend efficiency committees of three—one representative from the staff, one representative from the administration, one representative from the trustees—to whom you can pour out your woes. Don't be afraid—the right is on your side.

EVOLUTION OF POLICY CONCERNING TUBERCULOSIS HOSPITALS.

Massachusetts Has Not Yet Solved the Problem of Who Shall Build and Operate These Institutions—Is It the Duty of the State?

BY JOHN H. GIFFORD, M. D., FALL RIVER, MASS.

To Massachusetts belongs the creating built the first state hospital for the care of NO Massachusetts belongs the credit of having cases of pulmonary tuberculosis, and was intended for incipient cases. It was located at Rutland and was completed in 1898. The hospital was the result of the expression of professional and public enthusiasm over the recently realized possibilities for the cure and for the arrest of the disease in its early stages, and was intended and it has always served as a great object lesson to the citizens of the state. It was a lesson of hope so greatly needed in a situation steeped before in almost universal despair, but was, however, an attempt to save those who could most easily be saved. It was the first step, perhaps the only step then possible, but it did not go far toward the state-wide control or suppression of the disease, being concerned with case cures and was "heedless of far gain."

Later it began to be realized that the advanced cases were a greater burden and a greater menace to the state, and the conclusion was reached that in the proper care of these cases the safety and welfare of the community would be most largely secured. It was felt that for many such patients in the families of the poor and of those made poor by the disease this proper care could be assured only in an adequate hospital. Accordingly, stimulated by the spirit of the anti-tuberculosis organizations all over the state and especially by the

activity of members of the Massachusetts Medical Society, aroused and led by its public-spirited president, the late Dr. Arthur T. Cabot, the state authorized and built three additional hospitals for advanced cases. These were so located as to meet the demand of the different sections of the state, and have been in operation for four years. Before these were completed, however, there were waiting lists of patients beyond their capacity. Public sentiment has thus far in this state kept in advance of provision to meet its needs.

It has usually been necessary for cases of tuberculosis seeking state institutional care to wait several weeks before being admitted. This long waiting has been a serious disadvantage, especially in the advanced cases of the disease. Boston at one time maintained an institution specially devoted to caring for these cases who were on the waiting list for the state hospitals. This waiting, always a source of considerable dissatisfaction, has proven at least that the citizens of the state were fully aroused to see the necessity and the advantage of the hospital treatment of the disease.

The state of Massachusetts has, in addition, established at Rutland a state hospital for tubercular cases among its convicted criminals, and has built a large hospital at Tewkesbury for the care of tubercular patients among its dependent poor. In these five institutions the state has provided about a thousand beds for the care of people suffering from the disease. These represent an investment of over \$1,000,000 and an annual outlay of over \$500,000.

Now, the state of Massachusetts having gone thus far in this problem, having provided for its criminal class, having provided for its dependent class, and having economically built and equipped first a hospital for incipient cases and later three hospitals for advanced cases where the charge for maintenance should be practically diveded between the state and the patients themselves, or those responsible for them, what remained to be done? What was the logical next step? If the state had not already gone too far, was it not necessary that she should go still further? Was it fitting, having once put her hand to the plow, that she should now hesitate or turn back? The problem was a large one, but not larger than when she first entered upon it. It was not a larger problem for the state as a whole than for the state in its parts.

Instead, however, of accepting the situation as it had developed and going on to make adequate provision by further hospital construction where most needed, the state Legislature of 1911 passed a law requiring each city having a population of 10,000 or over to construct and maintain a local tuberculosis hospital, toward the support of which, after its approval, the state agreed to pay practically the same amount that it expends in the support of the state tuberculosis hospitals already built. The cost of building these hospitals equals the whole expense of maintenance for about one and one-half years, so that the state practically sacrificed the full control of these hospitals to this cost of construction, which represents the state's share of the maitnenance for three years. A feature of this law is that it gives no specification as to capacity, or location, or material, or equipment, or standard of management of such a hospital. It simply conditions the state support on the approval of the hospital by the State Board of Trustees of Tuberculosis Hospitals. As at present exercised, that approval seems to rest chiefly, if not entirely, on architectural construction and on physical surroundings.

When it is realized that hospital efficiency and success depend more on personality and on management than on structural refinements, that a hospital, like a home, may be good or bad, as its personal equations vary, it can hardly be conceded that looking over the grounds and buildings for an hour by a stranger from a distance furnishes a fair basis for appraisal of the work or worth of such an institution.

It would thus seem that the state of Massachu-

setts has not only thrown the construction of these additional hospitals onto the shoulders of every community in the state of over 10,000 population, whether rich or poor, purely residential or largely industrial, whether the local tax rate be \$7 or \$23 per thousand, whatever the other and possibly greater needs of some of these communities may be-it has not only unloaded this burden onto these forty-seven different communities of very various needs and of still more varying resources, but it has obligated itself to be responsible to the extent of \$260 per bed per year toward the support of these hospitals without voice or control in the method, the economy of the efficiency of their management. It is as if a fond and not overwise parent should say to his children, "Children, I am very much interested in your future welfare, especially in your health. Now, in order that you may learn to depend on yourselves and not on me, I am going to insist that each of you build a house for himself; When it is done, I will call and look it over; if it is such a house as I like, I will agree to pay thereafter half the ordinary expense of maintaining such a

Now, the oldest and most successful of these forty-seven boys, Boston by name, strangely enough had such a house already built, and the father, being called upon immediately, began paying to Boston the agreed subsidy of support. Another son, New Bedford by name, soon had a house given him by interested friends, and he in like manner was adjudged worthy to receive the paternal support. A third son, Fall River by name, had been living in tents, and previous to the making of this proposition had moved into a new home built for another purpose in accordance with plans approved by the father's chief medical adviser. But, when the father's inspector visited the house, he found that it lacked sufficient piazza space, that the yard had not been put into proper condition, that the house was too much exposed to sea breezes. For some such reasons as these, which were never fully made public, the father has withheld his support for now nearly three years from this needy boy. Yet this same boy helps to support the institutions of Boston and of New Bedford and of a few others, while getting no help himself.

Now, strange to say, fond as all these fortyseven different boys are of having houses of their own to conform to the requirements of their beneficent parent, and needy as most of them are of his financial support, in the nearly three years that have elapsed since the proposition was made less than a quarter of them have been able to avail themselves of his benevolence. Putting parable aside, it may be fair to inquire whether a proposition without time limit, but with a fine as penalty for noncompliance, which worked out in such a way as this, is fundamentally just and wise and well advised. Boston, representing about one-fifth of the population of the state, last year received two-thirds of the funds spent by the state under this act in local support, while she supplied in addition one-third of all cases (500 out of 1,500 in number) cared for in the state institutions for the tubercular.

The state of Massachusetts at least overestimated the effect that would be produced by this offer of the subsidy of support, and, most of all, it overestimated the rapidity with which results from this method might be expected. Proceedings have recently been entered against two cities of the state for failing to comply with this law.

It must be admitted that tuberculosis hospitals are a most important part of municipal health management, but it must also be granted that, locally considered, there are sometimes even more pressing problems and there are other methods of meeting the problem of tuberculosis, even more important for the time being, than a hospital for the advanced cases of the disease. In the city of Fall River, for example, the year after this law on local tuberculosis hospitals went into effect, 1.159 deaths (half the whole number of deaths. lacking one, for the year) occurred under two years of age, 994 of these under one year of age. The same year the number of deaths from tuberculosis was 152. Would it not seem that the more urgent problem for Fall River at least would be the day nurseries, the milk stations, the settlement houses, the district nursing association, the consideration of proper living conditions, proper housing conditions, proper working conditions? And yet Fall River, having constructed a modern hospital at a cost of over \$100,000 for the care of infectious diseases, gave this over as soon as completed and in advance of the enactment of this law for the occupation of her tubercular patients. The hospital was thus in operation previous to the enactment of the state law requiring local hospital for tuberculosis, and thus fulfilled the spirit, if not the letter, of the law. It at present is ministering to the needs of 60 tubercular patints, the limit of its capacity, and yet by the vote and veto of a single examiner it has failed thus far to secure state approval and state support under the law. The cost to the city last year in the maintenance of this hospital was over \$30,000, while the whole tax of the city last year for the care of tubercular cases was over \$50,000. Has any other city in Massachusetts spent more in proportion to its population, not to say in proportion to its wealth? Yet this is not so much a question as to who has done most and who has done least as it is, who has done his best.

The problem which confronts Massachusetts at the present time is to coordinate all forces working in this crusade into one cooperating force, so that all may share alike in equal obligations, in equal advantages and results. No other state in the Union is so much alive to the importance of this matter; in no other state have such results been achieved in reduced morbidity and in reduced mortality.

Recess committees of the state Legislature for the years 1912 and 1913 have worked on this problem. The report of the last committee has yet to be made, and it is stated that two reports may be expected. Representatives of the antituberculosis organizations of the state are soon to meet to discuss the situation. It is not unlikely that they may be able to agree on some form of legislation that will do away with present perplexing conditions, which will bring all the state into harmonious and effective cooperation in its continued campaign against the disease.

Report of the Boston Meeting Completed.

The book of the Fifteenth Annual Conference of the American Hospital Association at Boston was delivered to members of the association a few days ago. It is an imposing volume of 488 pages.

There is almost nothing left to be said of the Boston meeting of the association, of which this annual report is the permanent legacy and profit. The meeting was one of the most productive the association ever had. Live topics were discussed, and many of the most experienced hospital authorities of the day participated. Many new names were added to the list of those who might be expected to contribute to the world's knowledge of hospital problems. Many new men and women did contribute to our already rapidly growing store of experience, and to this extent this year's annual book is a valuable contribution in itself.

The new secretary, Dr. H. A. Boyce, did his work of getting out the report in a most careful manner. It is a nice looking volume.

But, most of all, it is to be said of this year's report that it should be a reference on the desk of every hospital worker in the land. There is that in its many fruitful pages that should help over the hard places, give new inspiration, new ideas, and new ideals.

St. Basil built a hospital at Cæsarea in Cappadocia in the year A. D. 369. A brother of St. Gregory of Nazianus, who was a physician, worked in it. It seems, from the writings of St. Gregory, about whose interesting account there seems to be no dispute, the hospital was a small city, with streets running through to separate the buildings for various classes of disease. There were also buildings for workshops and industrial schools; there were also homes for convalescents, residences for physicians and nurses, and great store houses where food could be stored against times of famine and war. Is there anything new under the sun?

SURGICAL DRESSINGS, THEIR PREPARATION AND METHOD OF DISTRIBUTION.

Contents of Laparotomy Drums Must Be Recounted Before and After—Carefully Directed Pupil Nurses Competent to Prepare Material—Certain Dressings Recleaned—Care of Gloves and Other Materials.

BY MISS ELIZABETH A. GREENER, SUPERINTENDENT OF HACKLEY HOSPITAL, MUSKEGON, MICH.

PAPER III.

In the average small hospital the entire responsibility for surgical dressings as to their preparation, sterilization, and distribution must be placed in the hands of the surgical supervisor, who is, as a rule, the only graduate nurse employed by the hospital for this entire department.

This supervising nurse is responsible not only for the correct surgical technic and administration of the operating rooms, but also for the teaching and training of pupil nurses as assistants. In addition to this she has also the responsibility for the preparation of surgical material and dressings for the whole institution. As a result many duties which in a large hospital would of necessity be placed in the hands of the graduate nurse are intrusted in the smaller hospital to the pupil nurses in their last year of training. Nor must this be considered as a disadvantage, but rather as a great advantage, to the pupil nurse herself, who must necessarily be trained from the day of her entrance with the special view of preparing her to assume such responsibilities. In the wellorganized small training school the nurses vie with each other in trying to prove their fitness to take these advanced responsibilities, and are filled with a sense of pride when intrusted with such work.

PREPARATION OF DRESSINGS.

All surgical dressings used in our institution are prepared under the supervision of the surgical nurse. She has at all times one third-year pupil nurse in the operating room as her assistant. Each nurse receives from ten to twelve weeks of this special training.

During operations a second nurse is sent to the operating room to assist, and our usual plan is to use as assistant the nurse who is next due to have her operating room service. In this way she becomes gradually accustomed to the work of the operating room and somewhat familiar with the methods followed by the various surgeons.

We have, in connection with our operating room, a nurses' work room, which is used for the preparation of dressings. Across one entire side of this room are special closets, arranged in several separate sections, in which these surgical supplies are kept.

It is realized that every hospital has its own method of preparing and packaging dressings, which must vary according to the demands of the surgeons and their individual preferences. The dressings used most commonly in our operating room and wards are:

1. Flat Sponges.—Twelve flat sponges 4½ inches square, folded so that all raw edges are turned inside.

2. Laparotomy Sponges.—Made in four sizes—12 inches square, 8 inches square, 6x12 inches, and 4x7 inches. Each sponge is eight layers thick, made with all raw edges turned in and edges overcast. The sponges are stitched across and each has a 12-inch tape attached. These are the only sponges used after the peritoneum is opened. Ten are folded in each package.

3. Packing Gauze.—Flat-folded gauze, with all edges turned in. Made in varying widths from ½ inch to 2½ inches, and cut in 6-yard lengths. This is packed in test tubes or screw-cap glass iars

4. YARD ROLLS.—Gauze, full width, folded eight times, cut into yard lengths, and rolled tightly, six rolls in each package.

5. Five-yard Packs.—Full width gauze folded into quarters and rolled in 5-yard length. One only in each package.

6. Four Gauze.—Full width gauze folded into eighths and cut in half-yard lengths. These are folded so they resemble a heavy sponge, and are used for nearly all ward dressings. Four pieces in each package.

7. Combination Dressings.—One thin layer absorbent cotton 14x10 inches and one layer of non-absorbent cotton folded into gauze square, two in each package.

8. Dressing Sponges.—Small twisted gauze sponges for use in ward dressings, twelve in each package.

9. Sponge Cotton.—Absorbent cotton in rolls 3 inches wide by one-half yard long, used for sponging.

These dressings are done up in covers of unbleached muslin, which are from 16 inches to 18 inches square, marked plainly and sterilized.

Laparotomy sponges are always counted twice

before the package is closed. The surgical supervisor and sponge nurse always count every package of sponges again as they are opened for use at an operation, so that every package of laparotomy sponges is counted four times before use. All sponges used for pus cases are destroyed. The others are washed, soaked in a disinfectant solution, and boiled for an hour, after which they are packaged and used again.

The bandage materials most commonly called for are gauze or muslin in assorted widths, plaster bandages in assorted widths, lint or sheet wadding, flannel, and net bandages for head or eye work.

In preparing bandages for ordinary ward use, we use the yard-wide gauze rolls 6 yards long. These are extremely convenient, as they can be cut into required widths as needed. In operating room work we use the gauze or muslin bandages, which we buy by the pound.

In the preparation of plaster bandages we use the unbarred crinoline and dental plaster, which hardens rapidly, forming the best kind of a cast. Under plaster casts either bandages of lint, or sheet wadding, or woven webbing are used, according to the preference of the surgeon.

A material which we use considerably in head or eye work is white unbarred mosquito net. This material is cut into the desired width and length and rolled tightly. Before applying, the bandage is wrung quickly out of warm water. It dries rapidly, and, being full of a sticky starch, forms a nicely molded, comfortable bandage, which is difficult to displace even in conditions of great restlessness.

Another substance used frequently for minor fracture cases is a liquid-starch splint material. This substance is painted heavily over a thick firmly applied bandage. It hardens rapidly and forms an extremely strong but very light cast.

Other materials called for and kept ready for use at all times are: guttapercha or rubber tissue; rubber gloves; oil muslin and paraffin paper; rubber tubing, rubber dam, or gauze drains; iodoform and aristol gauze packing.

Our stock of surgical dressings intended for ward use is kept entirely apart from that prepared for use in the operating room.

It would be difficult for the surgical nurses to keep up a full stick of supplies at times when the operating room service is unusually heavy. In order to provide against any shortage, the night superintendent has surgical dressings made by any of the night nurses having a light service. This constitutes a reserve stock, which is kept in a separate store room, and given out only when necessary. Also, at times when the hospital is

light, a number of younger nurses or probationers are sent to the operating room to make up dressings under the direction of the surgical supervisor. The instruction received at such times is most valuable to the junior nurses, and helps them later in their operating room service.

In the preparation of surgical dressings we use two grades of gauze. A small amount of rather fine material is used for certain dressings, sponges, and bandages, but the larger amount is of the coarser gauze, about 16x20 mesh. We contract each year for the amount required, having one-half the amount shipped to us each six months. In ordering this way, we can deal directly with the manufacturers, and thus buy more economically. The same method is followed in the purchase of cotton, which we also buy in two grades—a small amount of very fine cotton, used for special operating room work, eye cases, etc., but a much cheaper quality answering the purpose for pads and ward dressings.

For use in our obstetrical department we find it cheaper, if the time of the nurse is taken into consideration, to purchase the sanitary pads rather than have them made. These pads come in great gross lots tied up in bundles of one dozen each, and have only to be folded into packages of the required number and sterilized.

All the surgical supplies, gowns, towels, etc., used in our obstetrical department are prepared in the operating room under the supervision of the surgical nurse. For special convenience in this work, we have what we call an obstetrical package, in which is packed every sterilized article needed in our case room for the delivery of one patient, from the gowns of the doctor and nurse to the dressing for the umbilical cord, each article being also in its own separate wrapper. A great deal of time is saved in preparing for a case by this convenient plan. At least two of these packages are always kept in the case room ready for use, beside extra sheets, gowns, towels,

Probably many small hospitals experience the same difficulty that we had for some time because of the large amount of sterilized goods required in the hospital, and the fact that the only sterilizer provided is a moderate-sized one in the operating room. As a consequence it takes a great deal of valuable time to sterilize goods several times daily. We did not desire to purchase any additional sterilizing equipment until we should build our anticipated new obstetrical pavilion, and therefore decided to move our large mattress sterilizer into a convenient corner of the locker room in our basement. Each day the larger part of articles to be sterilized are taken down from

the operating room and sterilized there. For large packages, like our obstetrical bundles, it is a great convenience, and the work of sterilization is done in about one-fifth of the time formerly required.

DISTRIBUTION OF DRESSING MATERIAL.

The process of requisition and distribution of ward dressings is as follows: Every evening before 6 o'clock the head nurse of each ward sends a requisition slip to the office of the assistant superintendent with a list of surgical dressing material required, including towels, for the next twenty-four hours. If any of these supplies are needed for the night nurse because of any unexpected emergency, that fact is plainly stated.

The assistant superintendent looks over these slips carefully, and, if she considers them correct, signs them and sends them at once to the surgical supervisor. Any goods needed for the night are sent by her immediately to the ward. The remainder is sorted out and left ready for distribution the first thing the following morning, when each head nurse sends to the operating room for her supplies, returning at this time all outside covers from sterilized dressings and any opened packages of dressings which cannot be considered sterile.

By having these surgical requisitions pass through the hands of the assistant superintendent we have a check on the amount of dressings ordered. If she finds any nurse calling for more material than would appear necessary, she sends for her and gives her an opportunity to explain the reason for her apparent extravagance. It must be said, however, that as a rule these requisitions are made out carefully and call for little change. The nurses are impressed from the first with the necessity of economy in the use of dressing material and the importance of most careful handling of sterilized goods.

The nurses in the surgical wards are also taught to have two surgical trays set up ready for use at any time, with all the articles needed for an ordinary dressing. One of these trays is for clean cases, the other for pus dressings. This saves considerable time when needed unexpectedly or at night, when only one nurse is on the floor.

When doing abdominal dressings, the outside cotton or combination dressing is frequently used several times if perfectly clean.

In the wards all dressings from clean cases are saved in special bags of ticking provided for that purpose and sent to the laundry to be washed. These bags, with their contents, are removed every other day by the laundress and fresh ones hung in their place. The gauze is taken to the

laundry and soaked in a disinfectant solution for three hours, after which it is washed, boiled, and returned to the operating room. Here the nurses sort it over, preserving all that can be again used for dressings, and place the remainder in a bag to be made up into soft absorbent pads for drainage cases and other similar purposes.

RUBBER GLOVES.

Until two years ago all gloves used in this hospital were furnished to the surgeons free of charge. It was found, however, that this one item of expense was assuming such undue proportions that it was decided to request the doctors to pay for or provide their own gloves, which they now do.

Generally speaking, our surgeons leave the matter of gloves entirely in the hands of our surgical supervisor. The hospital keeps on hand a stock of gloves of good quality, furnishing them when required to the doctors at cost. By this arrangement the surgeon has the advantage of knowing that his gloves will always be ready and properly cared for. The gloves are sterilized, mended, and looked after in the same careful manner as when furnished by the hospital.

When any surgeon needs new gloves the surgical nurse notifies him to that effect, and he is furnished with half a dozen new pair. A few pairs of standard sizes are always kept prepared in reserve in case of emergencies. The gloves used by interns and nurses are, of course, furnished by the hospital.

Our gloves are sterilized by steam, fifteen pounds pressure, for thirty minutes. After pus cases all gloves are boiled, and also after such cases the surgeon removes his gloves in a basin of 1/1000 bichlorid solution, where they remain until the nurse has time to remove and cleanse them.

In preparing gloves for sterilization we place in each package a small folded square of gauze containing sterilized starch or talcum powder to dust on the hands of the surgeon before applying.

General Torney's Hospital Work.

Brigadier-General George Henry Torney, late surgeongeneral United States Army, whose death occurred in Washington on December 28th, was an ardent advocate of well-equipped and well-managed hospitals. Many hospitals were erected under his direction. At the time of the San Francisco earthquake General Torney, then commandant of the Letterman General Hospital, opened its doors to the public and cared for the refugees. He practically built the Army and Navy General Hospital at Hot Springs, Arkansas. To his efforts is largely due the building of the Walter Reed General Hospital at the nation's capital. At the outbreak of the Spanish-American War he fitted out and commanded the hospital ship Relief.

RECORD KEEPING AT THE MASSACHUSETTS GENERAL HOSPITAL.

System Built Up On Ninety Years' Experience Provides for Present Use and Future Reference—Accuracy, Neatness and Completeness Are Required.

BY BYAM HOLLINGS, M. D.

ASSISTANT ADMINISTRATOR MASSACHUSETTS GENERAL HOSPITAL.

THE records at the Massachusetts General Hospital which concern patients are separated into two main divisions—the out-patient records and the hospital histories. These two divisions are in charge of a record clerk and her assistants in the out-patient department and the librarian and her assistants in the hospital.

In the out-patient department the 223,000 records are centralized in the record room. They are filed in drawers which contain sixty records each, and on each drawer is a card which indicates the range of numbers within. The histories themselves are of thin cardboard, 6 inches by 93/4 inches, and are placed lengthwise in a brown paper folder, the rear sheet of which extends slightly beyond the front, so that the history number, which is also printed on the inner side of the projecting brown leaf, is visible on opening the drawer. Besides this, to facilitate the work of locating the desired number, there are markers which separate the histories into groups of ten.

When the patient arrives for the first time he is given a blue linen card, on which is written his name, hospital number, and the department in which the admitting physician in the out-patient department considers he should be treated. If the physician is unable to decide by questioning, he makes a brief examination in one of the adjacent examining rooms. The number is stamped on his history, and opposite the printed words is typewritten his full name (no initials are permitted), address, occupation, birthplace, race, and whether married, single, or widowed. This blank history card is sent by a small hand elevator and thence by messenger to the department indicated. The patient, after some guiding, reaches that department which he may have discovered is printed on the blue linen card in his pocket or hand, and the student or house officer proceeds to ascertain and enter on the history card the facts concerning the patient's occupation, family tendencies, past history, and present illness. The urinalysis is also added in medical cases, and the patient appears in a single room ready for the visiting physician. The results of his examination and the medication given are noted on the history, and the diagnosis, which must fall within the limits of the prescribed nomenclature, which is posted in

each clinic, is written at the bottom of the history in a separate space opposite the word "diagnosis."

If a final diagnosis is impossible, a preliminary diagnosis must be written in a space designated for that purpose. At each subsequent visit of the patient a date is stamped on a separate line, and the course of the day's examination and treatment is noted. If the patient is sent to another department for consultation or is referred for an opinion, the record is stamped to that effect and sent to the other division. The report of the physician consulted is placed after the stamped inquiry. If the patient is transferred to another department, the whole history is redirected to that department, so that thereafter it comes directly to that last medical division whenever the patient visits the out-patient department.

At the end of each clinic day the histories are collected, sent to the record room, and filed. Each of the old histories is replaced in its folder, which is removed from the drawer at the time the history is taken out. Each new history is placed in a folder, which is numbered to correspond to the history. In addition, two small cards are made out for each new patient. One, with the nameas Woods, James Herbert—with the address, age, out-patient number, and diagnosis, is placed in the name catalogue. The other small card. headed "Pleurisy" and followed by the name, age, address, and out-patient number, is placed in the diagnosis catalogue. When James Woods calls for treatment, his number is sent to the record room, and the history is located directly by that number, and sent to the department indicated. By means of the diagnosis catalogue the investigator interested in groups of cases may find these cards assembled and be able to locate the histories, and the teacher in the same has his material easily accessible.

The social service records in the out-patient department are retained in that department, but there is evidence on the patient's history in the record room that there is full sociological record also on the cases when an investigation has been requested by the physician. The value of these records is considerable, as the physician is enabled to visualize the home surroundings of the patient and the treatment is directed accordingly. If the treatment seems unsuccessful on account of the patient's ignorance, carelessness, or lack of

¹Paper read before the American Hospital Association, Section on Large Hospitals, Boston, August 27, 1913.

money for absolute necessities, the report of the social worker reaches the real reason and results may then be obtained. In consequence of thorough social work, there is less waste effort on the part of the physicians and less waste of hospital facilities because the cases are followed until results are accomplished.

By this simple system, in the out-patient department, of the history card, the name and diagwere first taken at the Massachusetts General Hospital. Not a record is missing for this period of about ninety years.

When the patient applies for admission to the wards, the admitting physician in the main hospital fills out a slip on which appears the following headings: date of admission, ward, service (medical or surgical), name in full (initials are not allowed), residence (in full), age, color, married,

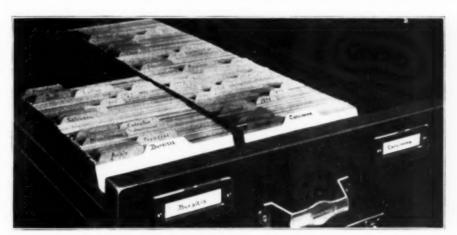


Fig. 1. Surgical card catalogue grouped by diagnoses.

nosis catalogues—each distinct, but filed in one central place—and the sociological record we have a method by which the records are quickly obtained, are accessible to the authorized investigator, and are safe from loss or mutilation. The patient does not at any time handle his own record, and no one outside the medical staff of the hospital is allowed to see the records. If a

single, or widowed, full address of a relative, name and full address of a friend; also the name and full address of the patient's own physician. This slip is copied by a carbon sheet onto a similar sheet. One of these goes with the patient by messenger to the ward and is known as the "nurse's slip," the other remains in the office and the data thereon is transferred to a large book



Fig. 2. Surgical card catalogue grouped by anatomical regions.

record is temporarily loaned within the hospital, the borrower signs for it, so that it may be traced. The record room librarian reports to the outpatient superintendent the histories that are unsatisfactory from lack of diagnosis or other necessary information, and these omissions are corrected by the department responsible.

In the main hospital are collected in some 1,730 volumes all the records from the time that records

and extends across two pages on one continuous line. At the same time this slip and this line are stamped with the same number. This is the patient's hospital number. The information on the slips made out by the admitting physician is gathered with care, and the slip is marked "correct." The word "correct" permits the nurse in the ward to use that data for the head of her chart sheet. If, owing to the fact that patients

may be admitted by others less careful than the admitting physician, there are slips without the word "correct," the nurse may not use any of that data for the chart sheet until the clerk has questioned the patient or his friends carefully, remedied any errors, and stamped the slip "correct." This seems perhaps an elaborate procedure, but its value has been amply justified, by the results in tracing cases after leaving the hospital and in locating the records for court use, for physicians and for teaching purposes.

Each day the custodian of the records inspects the charts of the patients discharged on the previous day and compares the data thereon with the data which has been marked correct on the "nurse's slip" which is attached. Each Monday the surgical records. The surgical history shows the number of the medical record, so that the one record may easily be consulted in connection with the other if so desired.

At the end of a year a letter is sent to all surgical patients, except those who die in the hospital, requesting them to return to the hospital for an examination. If they are unable to return, they are requested to describe their condition, and certain leading questions are asked. In this way the end results may be added to the surgical histories, already filed, and the patient is also benefited by the advice given at the time of examination.

The method of cataloguing these 1,730 volumes in the main hospital is of value, as it has been

		Didea by	DATE and II	N.T.						
. Date		Zeas.	Znes	Diagnosia	Physician.	Disc	Discharges		Condition	Remras
-	1	Horgan, Euro	1	Anenia, permicious Pregnancy	F. C 3	Aug	22 .	1910	Relieved	To 0.P.D.
	2	Tackeff Sorths	*	Aortic & mitral stanceis Aortic & mitral regurgitation	F C S		15	*	Relieved	
	3	Rosell, Mary T	13	Polyartkritis (rhoumtic)	F. C S		13		Much relieved	To 0.P.D
		Bianchi, Luiss G	17	Abdominal pain (causet)	F. C. 8		15	-	Untreated	
	-		-	Litral regurgitation	F. C. S.		25		Relieved	To 0.P.D.
•	11	Wolley, Serah A	23	Arthritis; infections Perioarditis, acute			_			
	11	Larson, Ellen S	29	Vitrel regurgitation	P C. S.	Sept	3	•	Well	To Murerley
	11	Carter, Annie B	35	Infection, acute (influenza?)	F C. S	Aug			Well	
	13	Williams, Mary T	39	Phthisis, subscute !	F. C. S		17		Untreated	To C.P.D.
-	15	Blackmore, Ellen M	43	Selerosis, multiple	F. C. S.	•	18	•	Untrested	To O.P.D.
	25	Van Wyke, Etta E.	47	Cholelithiesis Cholesystitis	F. C. 8	-	23			Tr. to South Surg
	16	Skinner, Ferebbe G	53	TyphBid fever	F. C. S	Oct.	16	-	Well	To O.P.D.
	16	Geldberg Ida G	59	Colon infection	F. C. S	Sept	20	•	Well	To O.P.D.
*	16	Lupen, Sarah	63	Status lyaphaticus	F. C. S	Aug	16	•	Dead	Aut. #2658
	16	Blundell Lillian G.	67	Eclampela	F. C. 8	-	17		Dead	Aut. #2660
	19	Carlo, Julia	73	Infection, scute (influensa*)	F. C. S		80	•	Relieved	To C.P.D.
	17	Sisserman, Elizabeth	**	Cheren, infectious Endocarditis Hitral regurgitation	P C. S	Sept	1	•	Well	To O.P.D.
	18	Cauthier Rossanna	81	Witrel stenosis & regurgitation	7. C. S.		10	4	Untreated	
	18	King, Martin J	87	Pinthisia	F. C. S	Aug	22	•	Relieved	To O.P.D
	18	March, Annie E	93	Pothisis	F. C. S.		30		Not relieved	To Q.P.D
	19	HeDonough Mary	99	Polyarthritie, acute infectious	F. C. S	Sept	•		Well	
•	20	Gargton, Mary	103	Engyona	F C S	Aug	21			Tr. to South Surg
	22	Rosenberg, Armie	107	Abscses, peritoneillar	F C 5		25		Duel. relieved	To O.P.D.
	22	Godinsky, Rose	111	Pneumonia, lobar	F C. 8	•	27		Dead	No Autopey
•	23	Durling, Ines E.	117	Anemia, secondary lialeria, tertian	F C. S	Sept	13		Well	To Waverley

Fig. 3. Part of index page of bound volume of medical histories.

the charts and histories of the patients discharged during the previous week are received and inspected for completeness, accuracy, and neatness. The chart sheet indicates under appropriate headings whether the patient has an out-patient history, and whether there are any other hospital records on the same case, and, if so, the numbers are given whereby these records may be located.

Frequently it happens that a patient enters a medical service and is transferred to a surgical service after consultation. In such a case the medical history ceases at the time the patient leaves the medical ward and a surgical history along the same lines is begun in the surgical ward. The medical history is eventually bound among the medical volumes, with a reference to the number of the surgical history, which is also on file in

found that under this system the patient's record can be presented in from one to three minutes.

The pivot of the system is a white card 5 inches by 8 inches. This has the admission data and is headed by the patient's full name. The size of the card allows for the additional headings of preoperative diagnosis and postoperative diagnosis, anesthetic, important points in the operation, and complications of the convalescence. For a medical case there is a similar card, with appropriate headings, such as preliminary diagnosis, final diagnosis and complications, object of coming to the hospital, and condition at time of discharge. In other words, a minature history is presented as soon as the patient's name is located, and the complete bound history is indicated by a number on the card.

In addition to the name catalogue there are three card catalogues, two of which are for surgical cases and one for medical. The surgical cards are made out in duplicate. One card is filed in the catalogue of diagnosis and the other is filed in the catalogue of anatomical regions. For example, the record of a patient suffering from ankylosis of the knee would be filed under the anatomical region of "knee" and the subheading of "ankylosis." It would also be filed in the diagnosis catalogue under the main heading of "ankylosis" and the subheading of "knee." The medical cards are, in general, grouped by the diagnosis, as, for example, under "diseases of the arte-

- 4. The admitting physician in the out-patient department reviews the records, and requires the correction of omissions by the department responsible.
- (B) In the hospital:
- 1. The histories are centralized, and are under the care of a librarian and her five assistants.
 - 2. Four card catalogues.
 - (a) One in which all the hospital cases are filed alphabetically by name, on which is a minature history.
 - (b) Two surgical catalogues—one anatomical, one with diagnosis. Each surgical case



Fig. 4. Bound volumes of patients' histories

ries" will be found the subheadings of aneurism, aortitis, arteriosclerosis, dilatation, embolism, endarteritis, etc. The diseases of the main organs of the body, however, are grouped under the headings of the organ affected.

In summarizing briefly we may notice these points:

- (A) In the out-patient department:
- 1. The records are centralized, and are in charge of a record clerk and four assistants.
- 2. The patient does not touch his history, neither does any one not intimately connected with the institution.
- 3. The social service record reinforces the medical record when investigation is requested.

- is filed by the anatomical region affected and by the diagnosis made.
- (c) One medical, in which affections of the main organs of the body are grouped. Cases are filed by the diagnosis under those organs, and all others by their diagnosis.
- 3. Great care is taken to obtain absolutely correct information concerning the patient's full name, correct address, and names and addresses of friends.
- 4. The charts are inspected on the day following discharge for accuracy, neatness, and completeness. Histories of patients discharged are inspected each Monday.
- 5. The catalogue cards, when ready to file, are inspected by the librarian.

6. No one, with the exception of the hospital staff and house officers, is permitted to see the records. An abstract or copy may be given under proper circumstances. The records, when summoned to court, are held in the possession of a hospital representative.

7. After one year all surgical patients are asked to return for examination, and a catalogue is kept of the results of these examinations.

This "end result" catalogue requires the entire time of one clerk.

QUALIFICATIONS OF THE MODERN HOSPITAL SUPERINTENDENT.

If Not a Medical Man, He Should Have Knowledge of Medical Subjects—Should Be Undisputed Head of Every Department of the Institution.

BY A. B. TIPPING, SUPERINTENDENT OF TOURO INFIRMARY, NEW ORLEANS.

T is not so long ago that many hospital superin-I tendents were selected who had no particular training or aptitude for the work. It was a means of earning a livelihood, and those who had the most influential supporters were given the appointment. Today a certain number of appointments are more or less in the hands of political powers, and some men are installed in office, not because they have an intimate knowledge of the work, but rather as a reward for services rendered in other directions. Fortunately it is gradually being conceded that "politics" has no place in an institution for the care of the sick, and boards of trustees are seeking men whose knowledge of the work will insure the maximum of efficiency. The necessary qualifications of a hospital superintendent are numerous and varied. If he is not a doctor, he must have at least sufficient knowledge of medicine and medical ethics to enable him to intelligently understand the requirements of the medical staff, and to cope with the various questions which are bound to be brought before him for decision. He must be conversant with the requirements and necessary equipment of each department in a hospital. It is imperative that he be a hygienic expert. He should be tactful, a good disciplinarian, a practical organizer, an apt student of human nature, and a person of sound judgment with keen insight. He is required to make contracts for supplies and supervise the purchasing of everything needed for the hospital, and then see, so far as possible, that for every dollar expended one dollar's worth is legitimately used. He should understand something about mechanics, electricity, and heating, cooling, and ventilating systems. If a new building is required or structural changes are necessary, it should be to the hospital superintendent that the architect would look for the requirements and rough plans after the superintendent has carefully ascertained exactly what is wanted by con-

sultations with the trustees or managers of the institution and with the medical staff.

It is not sufficient that he should be content merely to continue the work which his predecessor did. It is his duty to endeavor to keep the hospital abreast of the times and strive to increase its efficiency. Every week some new apparatus, appliance or instrument is placed on the market—some of value only in the mind of the inventor, others beneficial to doctors and patients. These should be carefully studied, as well as the literature dealing with hospital matters, as many extremely useful articles are appearing in the various publications.

The board of managers or board of trustees of a hospital, having once selected a superintendent whom they consider to be an expert in his profession, would do well to leave him untrammeled with too many committees or too much red tape. He must be given large latitude in his work if he is expected to accept responsibility for the results at the end of a year. By "results" I mean that the patients have been taken better care of from a medical and hygienic standpoint; that the departments of the hospital have more than maintained their all-around efficiency, and that the medical staff and heads of departments are working in harmony and with loyalty. In some hospitals a superintendent must obtain the consent of a committee before he expends a sum in excess of, say, \$100 for a certain requirement, although the total purchases by him during a month may amount to many thousands of dollars. It is quite right that a finance committee should keep in touch with the finances of the hospital, but, if anything is needed in the opinion of the superintendent, he should have the necessary authority to purchase it without having to wait possibly three or four weeks for the committee to assemble.

A superintendent should make it his duty to keep the board informed of everything of impor-

tance that occurs or may arise from time to time, and obtain authority from his board before making radical changes or heavy additional expenditures, and the managers in turn must place full confidence in him, or obtain another in whom every trust can be imposed.

The superintendent must, of necessity, watch the finances of the institution, and be guided by the bank balance when he considers the purchase of anything which may not be absolutely essential. Hospitals with plenty of funds at their disposal can afford to experiment, as it were, with new and more or less expensive ideas and suggestions, but those of limited income must be content to purchase the essentials and experiment only to a lesser degree.

A board of trustees which studies the per-capita cost of patients with the idea of judging the merits of their superintendent are following the wrong trail. He can very easily issue instructions to his steward or purchasing agent to purchase a cheaper grade of meat and groceries, and purchase cotton waste instead of a good grade of absorbent cotton, and so forth, which would quickly lower the per-capita cost, but he would not be performing his first duty, which is to study the interests of the patients. A hospital cannot be made a dollar-and-cent proposition. Medical science has advanced and is advancing in very rapid strides. The superintendent of a hospital must keep advised of its progress, report to his board, and, whenever necessary to the welfare of patients, the board of managers must seriously consider the oftentimes additional needs as a result of this advance. And when the end of the year comes around they must judge the superintendent by the success the hospital has attained from a medical standpoint—not only by the balance sheet.

The superintendent should be held responsible to the board for every branch of the hospital work. He should be invited to attend the board meetings whenever details of management or contemplated changes, complaints or suggestions affecting the hospital are being discussed. His advice is oftentimes valuable. His good taste will prevent him from interfering in discussions when silence on his part would be more appropriate, and, if it were the desire of the board to discuss the merits or demerits of the superintendent, he should take no exception to being excused from the room. He, of necessity, must be more familiar with actual conditions and requirements than the members of the board, and can offer solutions to difficulties or suggestions which, if he were absent, might absorb the attention of the board an unnecessary length of time.

In almost every institution which has a regular

medical staff a committee is appointed from among its number, consisting usually of five or more chiefs of services, to discuss the medical and scientific requirements of the hospital and to regulate the services. At these meetings the superintendent should be present and join in the discussions.

Some hospitals have a training school committee to which the superintendent of the training school reports and with whom she consults, and the committee then reports directly to the board. This system may have some good points, but it is very liable to disrupt the harmony which should exist between the superintendent of the hospital and the superintendent of the training school. The work of the training school is so closely interwoven with all the other work of the hospital that, unless there is unanimity of opinion and action and close cooperation, the efficiency of the hospital must necessarily be lessened.

In other words, the superintendent of a hospital, as its executive officer and administrator under the direction of the board of trustees, should be consulted by and have control over all its departments, and all matters to be placed before the board should first be referred to him for his consideration and opinion. There must be one head to every institution, and it is essential to the well-being of a hospital that he be accorded the hearty cooperation of those who participate in the fulfillment of the aims of the institution.

School for Study for the Insane.

An entirely new work has been instituted for patients in the Massillon (Ohio) State Hospital for the Insane. It is a school conducted like any children's school, and the 300 pupils, patients in the institution, are to study geography, reading, arithmetic, and other branches of the ordinary education just as though the sanity of the pupils had never been questioned.

Dr. H. C. Eyman, the superintendent of the hospital, declares that his first efforts have been crowned with greater success than he had even dared to hope. It is said that many of the patients enjoy the school work very much, and are able to carry the work of the classes with quite as much ability as normal people. The German so-called "object lesson method" is applied in mathematics.

As this was Dr. Eyman's pioneer experiment in teaching insane patients, he preferred to do most of the work personally, and up to this time he has conducted most of the classes. It is proposed, as soon as the experiment is demonstrated a permanent success, to build a school building in connection with the state hospital, with all of the accessories for teaching purposes.

The Lakeside Hospital, Cleveland, will have an interesting extension of sociological features in hospital administration. It will be the aim of the hospital to attend to the social needs of the patient, as well as to his medical illness. If it is dependent on social conditions, it will be studied and an effort made to correct them. The problem will be to cure and restore the patient to complete usefulness.—Ohio State Medical Journal.

SOME SALIENT POINTS IN THE CONSTRUCTION OF HOSPITALS.

Hospital Architecture Must Be Planned With Reference to Rules, But Not by Them—America Behind England in Orientation.

By F. B. MARTIN.

SURGEON GENERAL'S LIBRARY, WASHINGTON, D. C.

In the construction today of a modern hospital the employment of a hospital expert is an obligation due worthy contributors to hospitals and the general public. The late Dr. John S. Billings, of Washington, was preeminently an expert in the building of hospitals, leaving a monument to his skill in the Johns Hopkins Hospital, of Baltimore, one of the most complete and perfect sets of buildings ever erected for hospital use.

An important feature is the character of site, which must be the first consideration. The building should be self-contained to prevent encroachment upon light and air. A question difficult to answer is to what extent do differences in climate make necessary or desirable corresponding differences in the plan or construction of a hospital? The habits and customs of different localities, differences in temperature, moisture, etc., make up what is called "climate." In hot climates shade and coolness are more desirable. A higher temperature is demanded in hospitals in the northern part of the United States than in England, as our climate is drier, and our citizens live in higher temperatures than is considered healthful by the English. Thick double walls inclosing nonconducting material are desirable in the tropics and the arctic regions. In California, Japan, and such climates the walls are of light construction. It is easier to provide against great cold than long, constant heat. In cold, freezing climates double walls and double windows, with an abundance of radiating surface in the heating apparatus, are desirable. The complete inclosure of the basement is desirable for protection of all water and soil pipes against freezing. The separation of ward buildings from the administration, and especially the kitchen, is considered undesirable. Covered corridors connecting the wards are a necessity. In hot climates large swinging fans of the kind used in India are recommended. The evaporation of water from wetted screens relieves excessive heat. In malarial regions a ward high above the surface of the earth is better. For small 12-bed post hospitals the ward in the second story, as in the United States Army model plans, and administration rooms below, is recommended. In the English hospitals as much sunshine as possible is provided for the long axis of the pavilion, which is nearly north and south, but in countries nearer the equator the rule of "orientation" is less regarded; wards are generally so arranged that prevailing winds shall have full sweep. (William Atkinson's valuable contribution to hospital orientation, "The Orientation of Buildings, or Planning for Sunlight," "A Pyramidal Type of Ward Unit.") Some types are no good except for sunlight; a maximum amount of sunlight being needed for all patients is a fallacy, as illustrated in the Virchow pavilions, that have a single type of ward for surgery and ophthalmology alike, with an excessive exposure to sunlight, which is the bane of the ophthalmologist. The need of sunlight is indisputable, and justifies Mr. Atkinson's favoring northeast and southwest or northwest and southeast for long axis of typical hospital wards, as thus all outside walls are exposed to sunlight at some hour of the day throughout the year. Such is not the case where north and south or east and west systems of axes are adopted. Hospital planning must be first and last, and at all times, with reference to rules and not in accordance with them.

In America our hospitals are not planned in unlimited space as in Germany. The prime object in hospital construction should be to secure the highest possible sanitary qualifications, with such convenience of arrangement as will permit the greatest economy in administration. Beauty in severe simplicity and perfect adaptability to especial purpose are to be borne in mind. Convenience of arrangement must supplant symmetry of design. In hospital construction, as in hospital administration, the following of rules formulated from partial or special points of view leads to disaster. Medical knowledge, essentially of pathology, bacteriology, and hygiene, the principles and practice of nursing, the nurse and intern, local surroundings, available resources of the community from which the institution draws its support, and the needs of the community for which the hospital is designed to serve are all important subjects of consideration in planning a hospital.

In the selection of a site of a hospital, adequate fresh air, position and form of buildings, size and shape of wards, and the arrangement of outpatient divisions are all points of prime consideration. In the planning of wards in American hospitals the need of fresh air is rarely overlooked, but in the out-patient divisions, as a rule, ventilation is singularly bad and the need of fresh air is most apparent. American hospital architecture the writer deems most deficient in ventilation as well as administration of the out-patient division, and would recommend that we go to school to England, where no discrimination is made, and the needs of the main building and out-patient division are equally provided for.

In regard to ventilation space for individual ward patients, in England the local government board makes suggestions which the parish authorities are expected to follow. The requirements are 600 cubic feet per patient for adults and for children's wards 960 cubic feet. In isolation wards 2,000 cubic feet of air space per bed is demanded. For military hospitals the English war office requires 1,200 cubic feet per bed in ordinary wards and 2,000 cubic feet for infectious wards. Prussia, in its elaborate regulations for construction of hospitals, demands an allowance of 30 cubic meters for each adult ward bed and 25 cubic

meters for each child's bed. Single rooms 40 cubic meters are the minimum. In New York state 1,200 cubic feet per bed is demanded, and 800 where there exists full and adequate means of ventilation. Climatic and topographical conditions greatly influence natural ventilation. We must consider not only the plan of the hospital structure, but the neighborhood, the administrative practices, and the tendencies of the institution as well, when deciding whether space for each bed shall conform to standard, exceed it, or be permitted to fall below.

If we can raise the standard of administration, quicken the public interest, and secure the maximum of comfort by lessening the sufferings of the sick, especially the sick poor, our labors are not in vain. Modern hospitals erected as living memorials in constant use are incomparably above all useless piles of stone memorials to those "loved long since and lost awhile."

THE HOSPITAL ATTITUDE CONCERNING PUBLICITY THROUGH THE NEWSPAPERS.

"Manners Maketh ye Manne," and It Is the Duty of a Superintendent to be Courteous, But His Discretion Should Determine What Is News.

BY GEORGE P. LUDLAM, SUPERINTENDENT EMERITUS NEW YORK HOSPITAL.

THE very interesting article in The Modern Hospital for December under the above caption contains much that is valuable in the way of suggestion, and outlines a relation between the two institutions which would be mutually helpful if it could be instituted or maintained. Possibly, as the writer seems to imply, the responsibility for any hostile attitude toward the hospital which occasionally displays itself in the press lies with the hospital whose superintendent has been rude and discourteous in his refusal to furnish informa-There can, of course, be no excuse for an executive officer who is offensive in his attitude toward those with whom he comes in contact as the representative of his institution. same time, is it true that the reporter will always be content with a plain, unvarnished statement of facts, or that his paper will be satisfied with that kind of "copy?" Experience would hardly warrant that belief. In so far as concerns occurrences in which the hospital has largely or incidentally participated, the superintendent must be the judge as to what is proper to give out for publication and what is proper to withhold. This claim on his part is not always, perhaps not often, conceded by the press, and hence the irritation which sometimes develops into animosity.

It is not fair to assume that because a citizen

has met with an accident, or is the victim of an assault, and so becomes a patient in the hospital, he must on that account have all his private, personal, domestic affairs exploited in the press. The public may be interested in the facts of the occurrence, and the press may be justified in assuming that such interest exists and in exerting itself in gathering the details for publication, but there must be some judgment exercised as to how far it is proper to go in disclosing these facts, and in the nature of the case, in so far as concerns the hospital, that judgment must be lodged with the superintendent.

Unfortunately there is not always a harmonious agreement between him and the press as to his wisdom and discretion in exercising this judgment, and, perhaps, he is not always as mild and conciliatory as he should be in maintaining his right in this respect, yet it is manifestly unfair for the press to attack the hospital when its representative is standing firmly on his own ground.

It is probable that many hospital superintendents could give incidents from their own experience going to prove that the demands of the press for news are not always so innocently mild as would appear from the article under consideration. For example, some years ago a young physician, practicing in New York City, was called late at

night to an apartment where he found a young woman in a condition of violent hysteria. It transpired that she was living illicitly with the man who was also present, and a bitter quarrel between them was the cause of the trouble. The physician called an ambulance, and had her removed to a hospital. His sympathy led him to assume the responsibility for the payment of the hospital rates, although the patient was a total stranger to him. As the matter started with the police, it became public property and was duly published in the newspapers. One of them embroidered its report with the insinuation that the physician's personal relations with the parties were not above criticism, and hence his unusual activity in the matter. Believing that such an insinuation would injure his reputation, he sought through a friend to induce the paper to retract. It replied that it would print any statement the physician cared to make, and would, if desired, send a reporter to take down his statement, but would not withdraw nor modify the article complained of. And there the matter had to rest, the physician not caring to enter into any controversy.

Now, it would be manifestly unfair to use this incident as an illustration of the attitude of the entire press in such matters, yet it did not serve to cultivate amicable sentiments on the part of the hospital, nor prompt it to be overgenerous in furnishing details.

A young reporter was asked why, when he came to the hospital seeking information about any incident or occurrence, he always persisted in inquiring into the personal and domestic relations of the individuals immediately concerned, with a view to stirring up some moral garbage heap. He replied that he was sent out to gather such facts, and if he returned with the statement that, in his judgment, the publication of them would not tend to the moral uplift of the community, he would soon find that his services were no longer required, and that another man had his job.

Of course it would be quite as unjust to set up this young reporter as a type of a class, and an index of the kind of news wanted by the newspapers, as to regard the rude, discourteous superintendent as a type of his class. The discourteous hospital superintendent is out of place. If the press deals with him, it should be with the individual alone and not as the representative of a class.

Old Commodore Vanderbilt's alleged statement about his two sons is not forgotten. He was quoted as saying that one of his sons was saying "no" all day long and making many friends, while the other was saying "yes" just as often and making many enemies.

All this is not intended to controvert the position of the article mentioned. Its spirit is good and it teaches a salutary lesson—old, perhaps, but none the less important. It is that arbitrary, dictatorial, overbearing conduct is offensive, and excites irritation and animosity, whether it be maintained by a representative of a hospital or of the press. Or, in other words, according to the old adage, "Manners maketh ye manne."

A RECORD BREAKING REPORT.

Hospital Saturday and Sunday Association of New York Inspires Supporters by Fullness of Account of Good Work Done.

In its 1913 report, just issued, the Hospital Saturday and Sunday Association of New York City has published one of the finest samples of hospital statistics ever got out in connection with hospital activities anywhere. The result has been that in the few days that have elapsed since the report came out, many men and women prominent in financial, commercial and social affairs of New York have rallied to the support of the association, and from newspaper accounts of the past few days money is pouring into its treasury. One reason for this cordial and enthusiastic support is that the association has told in its report exactly what became of the money it received last year, the story being a most inspiriting one, and the vast amount of good work done must make every New Yorker feel like participating in it.

The report itself is a ninety-page pamphlet with a bright orange-colored cover, from the front of which the following statements rise up and strike one squarely in the face:

"105,669 suffering men, women, and children were last year restored to health, friends, and work, in the great majority of cases, through the forty-seven hospitals of this association."

The following summary of the work of the association tells the story in brief:

Free hospital days
Total hospital days
Nursing staff
Free patients
Public charges 20,636
Paying patients 41,261
Beds in hospitals
Beds occupied daily (average) 5,589
Ambulance calls
Dispensary cases 507,277
Dispensary visits

Accompanying the report is a chart, 18x24 inches in size, in which every essential detail about each of the forty-seven hospitals is tabulated, including the number of patients treated in each, the cost per day per patient, the average stay in hospital, the number of paying patients, the amount these paid; all the expenses of administration are tabulated in detail, distributed into items, and even a detailed statement is included showing the capacity and value of each hospital plant.

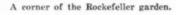
Those hospitals that are having trouble coaxing money out of their home people for their support might learn something greatly to their advantage by getting this report and publishing something like it, so that prospective givers could know where their money was going.

EXCELLENT WORK FOR CHILDREN.

Gardens of the National Plant, Flower and Fruit Guild of New York City.

A most interesting folder has been issued by the National Plant, Flower, and Fruit Guild of New York City. It tells the story of "The Children's Neighborhood Garden" operated for the past two years on the grounds of the Rockefeller Institute and Hospital. Last summer eighty-four children were entertained and instructed on a piece of ground that was made really beautiful with flowers and vegetables. Each child had a "farm" of 50 square feet, a space 10 feet long and 5 feet wide. There were raised during the spring and summer 418 bunches of flowers, 9,540 radishes, 2,727 beets, 712 heads of lettuce, 4 bushels







of beans, 1,240 carrots, and 207 ears of corn. The children were permitted to take these "farm products" home to their families.

There was a pathetic side to the story of this farm last year. A prize was offered for the best conducted, cleanest, and most productive "farm." The child in the illustration was the winner of the first prize. Notice the extension of the "jury mast" under his chin. The little fellow has curvature of the spine, and his work on the farm has benefited his health wonderfully and he is getting well. The other picture shows a corner of the farm.

The guild promises to have 200 children at work during the coming spring and summer. In the little folder, just issued, it is announced that the "farm" has almost revolutionized things in the crowded tenement neighborhood. The children go home and start flowers in boxes and in window beds, on the front stoops and on the back porches. The parents are keeping their alleys cleaner, and the owners of the tenements seem to have been shamed into providing better conditions and cleanlier surroundings.

The work of this guild is a suggestion to young women's organizations. This work can be done on any city lot, and almost any property owner would be glad to have a vacant lot so used.

In the great epidemic of the plague at Carthage in 252 A. D. each Christian, following the example of the pious bishop St. Cyprian, turned his home into a "hospitalium" for nursing the sick. Even this work had to be done in secret, as there was great persecution of the Christians at that time, and to be discovered nursing the sick was to be accused of Christianity. Constantine was converted by these Christian manifestations, lifted the ban, and became a zealot.

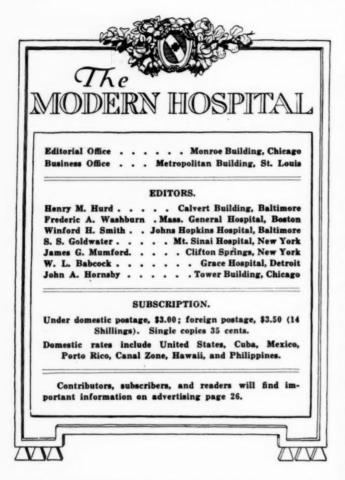
Pellagra Increasing in the South.

Pellagra seems to be spreading rapidly, especially over the southern states. The State Board of Health of South Carolina reports the disease in active, epidemic form in that state, 1,555 new cases being reported by 574 physicians in forty-three counties.

The authorities are appealing for an institution in which the disease may be studied, with a view to ascertaining the cause. Insanity as a sequel is one of the serious phases of the epidemic as reported by the State Board of Health, and owing to this disease all the state hospitals for the insane are overcrowded.

It is suggested by Dr. J. Adams Hayne, state health officer, that perhaps the disease is not more serious in that state, but that, because of the active work of the Government's Thompson-McFadden commission at Spartansburg, a correct diagnosis is more frequently made.

Denison, Texas, is to have a new city hospital, to be completed very shortly.



The Small Hospital a Factor in Medical Education.

Few educators realize how much can be done to train and perfect the general practitioner by a year of service in a small hospital. The importance of the large city hospital is generally recognized by those who seek to educate and train physicians for the better practice of their art. In a city patients come to the hospitals by wholesale, and their presence unquestionably affords the best opportunities for medical men who seek to train themselves for specialized work. The city hospital is not, however, always and invariably the best place for a man who is to become a physician in a remote region, where he may happen to be the only medical man, and must by force of local conditions devote himself indiscriminately to all branches of his profession. In a city the majority of patients who resort to a hospital have already consulted a physician, and many know what is the matter with them and visit the hospital for a definite purpose. The attending physician, consequently, feels less personal responsibility for the diagnosis, and the attending surgeon for the decision to undergo an operation. If additional medical or surgical advice be needed, the opinions of eminent men skilled in all branches of medicine and surgery are easily obtained. The young medical man has the proper course of

action in any case indicated to him on every hand and learns to expect guidance.

In the small hospital, apart from centers of population and medical schools, the same condition rarely obtains. Patients apply to them as isolated cases demanding immediate relief because of an urgent necessity for treatment. The resident physician or surgeon cannot select a special case in which he may be interested and refer another patient possibly to some other hospital designed for the treatment of another equally special case. The surgeon may find that he has to deal with a pure surgical case like a gunshot wound or a mixed medico-surgical case like an appendicitis, a typhoid perforation, or possibly an extra-uterine pregnancy-conditions which will not admit of delay to secure a consultation with a specialist or to transfer the patient to a city hospital. The emergency must be promptly met, and the responsibility for its proper treatment cannot be shifted to other shoulders. The physician on duty must act at once. The effect of such pressure is to develop in the young medical man fresh from his studies, with no large store of experience to guide him, a degree of self-reliance and courage to meet a crisis which could hardly be thought possible in a large metropolitan hospital with an ample staff of consulting and attending medical men. Such responsibility, if bravely assumed by a competent man, makes for growth and development at an important epoch in his career. He must study his case thoroughly and act promptly in the light of his best knowledge. Under the conditions forced upon him his surgery becomes definite and efficient. Excellent and selfreliant operators are thus created. Persons interested in the smaller hospitals should regard, in fact, the training of general practitioners as their special field of educational service.

Hospitals of this class often fail to realize the opportunities which they afford for this important work. In too many cases local medical men are timid about attempting any surgery, and, instead of operating, call surgeons from a distant city at serious hazard to the patient, who can ill afford the delay and increased danger.

Every town of 10,000 inhabitants not easily accessible to a city ought to establish an independent hospital in which men can gain experience and skill to meet any emergency which may arise. A good hospital with an operating room equipped for a clean surgery, with a well-trained nurse and a competent surgeon, is a valuable and necessary asset for every such town or large village. No one can foresee when such a hospital and equipment may be called on to save a life valuable to the whole community. Many towns possess such

hospitals through the efforts of self-sacrificing and public-spirited men and women. All honor to them! There should be many more, and each one should be used as a training school for the newly graduated physician, who may here learn to do better, because more individualized, work than is possible in a highly organized and specialized city hospital. He cannot become a trained specialist, but he can learn to do good surgery in combination with practical medicine, and attain a rounded proficiency in all branches of his profession rarely attained by the specialist.

HENRY M. HURD.

General George Henry Torney.

There are some men who spring from the horizon, flash across the firmament of life, startling the world by the brilliancy of their achievements, and, meteor-like, vanish into the unknown from which they came, leaving no trail to mark their passage, no imprint to guide their followers, no permanent good thing to the world.

There are other men who come quietly, unobtrusively, modestly, move in a steadfast, true course across life's span, leaving guide-posts and foot-prints along the way, and, whose work being done, quietly take their leave. But the imprint of their passage remains behind, and the world and their fellowmen are better for their having lived.

To this latter galaxy of the great belongs George Henry Torney, surgeon-general of the United States Army, who passed away on December 27th, in the sixty-third year of his age.

Though a soldier from his earliest manhood, General Torney's part was not to slaughter his fellowman; not his part to do and dare the brilliant charge in the mad heat of battle, drunk and reckless with the hot blood of carnage. Calm and deliberate, he faced his duty amid the tented sick and hurt. In the poisoned swamps of the South, the fever-laden airs of Cuba, and amid the lepers and the plague-infected Orientals of the Philippines he led his army of rescue; the only enemy he fought was disease, his weapons were those of science, and his victories were greater, more farreaching, and more permanent than any soldier of the line ever knew.

General Torney distinguished himself in the Spanish War, in Cuba and the Philippines, rendered great service to the sufferers after the San Francisco earthquake and fire, and attracted the attention of the world by his work in the prevention of typhoid fever during the recent encampment of the army in Texas. He was chairman of the war relief committee of the American Red Cross.

His death is especially a loss to the hospitals everywhere and to hospital efficiency. All his life he had given his best thought to the care of the sick in hospitals, and, in spite of a niggardly Congress and a complacent war office, and in spite of distressing inadequacy in the architecture and equipment of army hospitals, he had brought all the institutions under his care to the highest state of discipline and efficiency, and his last official act was a recommendation for vast improvements in his service.

General Torney is gone, but the spirit he invoked for the betterment of mankind will live, and, living, must quicken the flame of kindness and charity, and helpfulness and unselfishness in the hearts of all of us.

Sanatorium Equipment—Psychotherapy, II.

Not only is the proper relation of physician and patient the first essential in psychotherapy, as in all branches of practice, but the proper orientation of the physician to himself and for himself is almost equally essential. In more familiar words, the honest physician, of sound training and correct ethical standards, must recognize the limitations of his own capacity and equipment, and must undertake no more in the field of practice than he is competent to undertake according to the best standards of the community in which he lives. It is this recognition of capacity and limitation which distinguishes the true scientific physician from the humbug. It is this recognition which makes possible progress in the art of medicine. It is this honest recognition of self which raises the deserving to a place of honor among men, and debases the undeserving. These facts are fundamental in ethics. Bombast, braggadocio, and pretension are not the foundations on which a physician's scientific reputation is built. And, in the long run, bombast, braggadocio, and pretension are not good business assets for any man. Old patients find out the pretender and leave him. An atmosphere of suspicion settles around him. New patients seek him with distrust, and leave him hastily and without compunction. He builds in a shifting foundation, and renews his Sisyphean effort with every consultation. He is a fool as well as a knave. His psychological conception is bad, and yet his practice is founded in false psychotherapeutics. This is an old story, and yet, if pretension is bad in the practitioner, it is worse in the hospital. The credulous layman himself recognizes this fact. No dishonest hospital, no dishonest public medical institution, can long endure. And, more, no hospital devoid of a high scientific standard can reach distinction. No

honest, self-respecting hospital advertises to the mob its wares and boasts of its achievements, even though it be officered by the foremost living clinicians, and has to its credit the greatest discoveries of science. These facts are self-evident. How, then, shall it be with the *private* hospital or sanatorium. There we find the condition on which previously and sadly we have made comment. The commercial sanatorium conducted by an ordinary business man sees no discredit in advertising, business methods. The proper sanatorium will observe modestly an honest standard.

We have before us at this writing the business circular of a sanatorium promoter. He publishes what he calls a "Sanitarium Directory." states: "The Sanitaria in this Directory are first class, ethical, [O Allah!] and directed by men of the highest attainments in their several fields of endeavor [sic]. Consult them." Then there follows a list of sixteen unhappy sanatorium medical directors. A well-known sanatorium publishes a full-page advertisement in a popular magazine: "Brain fag—mental confusion—indecision, lack of vim and chronic weakness are evidence of something wrong with the body [ha!]. . . . At [our] sanitarium the efficiency of the whole body is measured; chemists and bacteriologists examine the bodily excretions, the blood and stomach contents; physical trainers test the physique and the muscles; other specialists study the heart, lungs, stomach, and other vital internal organs," etc. Shades of Hippocrates, my sanatorium friends! Are these things well? The American College of Surgeons, regardful of ethics, imposes a searching oath upon would-be fellows. Among all your busy excretion-searching specialists and the rest, lurks there a Fellow of the College? Let us rend our garments, let us mend our ways; and let us seek again that Truth which was yesterday our boast. JAMES G. MUMFORD.

Our Government Medical Corps.

The surgeon-general of the United States Army has submitted plans to the War Department for a new building in which to house the army medical school. The surgeon-general proposes to locate the new school on land adjoining the Walter Reed Hospital on the outskirts of Washington, so that students may have access to the considerable clinic material at that institution.

There is no group of men in modern medicine who have done so much for the health of the people within recent years as the members of the medical corps of the three government departments—war, navy and public health—and their work has been done usually under the great handi-

caps of extremely limited facilities. For instance, when a medical corps officer stationed at one of the metropolitan posts like New York, Boston, or Chicago, wants to do a piece of original work, he is obliged to accept the invitation and facilities of some local institution on whom the department has no claim whatever. It is to the great and lasting credit of the department, under its present administration, that most excellent and profitable work has been turned out under these conditions.

The duties of a medical officer of a government service differ radically from those of medical men in private practice. The army "surgeon" must be, not only a surgeon, but he must give competent service to the men of the line in every department of medicine, and in accordance with modern scientific requirements. Some of these men, while attending to their duties of camp or station doctor, have specialized on their own account-some on venereal diseases, others on tropical diseases, some on nervous and mental diseases, still others on tuberculosis, and so on throughout what we have become accustomed to call the specialties, and everywhere they have distinguished themselves and have shed luster on the service to which they belong.

Our experience in the past has demonstrated the hazard of maintaining an unpreparedness in time of peace, and the absolute necessity for keeping the services up to modern standards, to be prepared for war. Almost unaided by any governmental—that is, congressional—encouragement, these services have not only kept up, but they have gone ahead of similar services in even the great military states of Europe.

Now let us all add our little influence to see that the army, navy, and public health medical services get what they need. The surgeons-general can only "submit plans"—they cannot insist on their execution. We citizens can raise a row, demand of our Congressmen that they vote adequate appropriations. This is our duty.

Houston's Interesting Problem.

Physicians of Houston, Texas, acting in the capacity of the Harris County Medical Society, have taken the initiative in a movement for a charity or public hospital in Houston. They have passed resolutions for the creation of a hospital board of their own number, with finance, building, training school, and the other standing committees usually appertaining to hospital boards, and they have gone to the public for funds to build a hospital.

It is an innovation in this country for a group of physicians to take over completely the building and administration of a public hospital. And yet, who should know more about what a hospital should be and how it should be conducted? The trouble with such an organization heretofore has been that "the doctors could never agree." If this is to be an exception to the rule, and if the physicians can raise the money by commanding the confidence of the public, and if they can plan, build, and administer a hospital for the public benefit instead of their own, they will be entitled to the thanks of the medical profession everywhere, and to the gratitude of patients—present and for future generations.

There are three dangers in the Houston proposal:

1. That the medical men in control will undertake to use the hospital for their own personal interests, and that they will fall out among themselves on this account.

2. That those of the profession who cannot be members of the staff will fight the hospital in attempts to bully themselves into a place.

3. That medical men are not, as a rule, good business men—or at least there is a general impression to this effect, though there is no doubt the profession is rapidly taking on some commercial aspects, and financial affairs of physicians are now in much better hands than they were formerly.

A safeguard against all these dangers and pitfalls is for those in control to obtain the services now—not when it is too late—of a thoroughly trained hospital administrator, with medical education, to go along with them in their work as superintendent of their proposed hospital. Such a man will know all the dangers and how to avoid them; he will know more about the approaches to the hearts and pocketbooks of the benevolently inclined than they do; he will disarm criticism for the whole project by guiding it away from partisan and factional rocks, and he will help them to create a hospital and an organization that will be popular with the people by providing in the best possible way for the sick.

Louisville's Fine Position.

There are not very many scientifically trained hospital superintendents in this country—that is, men and women who are capable of administering the scientific as well as the physical departments of a modern hospital, especially one of large capacity and which has a specially delicate relationship to the great mass of the people, such as a municipal hospital. We are increasing the number each year, but there are too few to go round.

The modern hospital is a place where vast sums of money can be wasted by ignorance and incompetence, so that it is necessary to have a superintendent who is a good business manager; but the modern hospital is also a most complex affair, whose sole function, after all, is the care and cure of the sick. Medical science has progressed so far that the administration of the modern hospital requires of the administrator a broad and intimate knowledge of scientific processes, apparatus, technic, and operations.

These thoughts are just now prompted by the newspaper announcement that the newly elected mayor of Louisville, Honorable John H. Buschemeyer, has reappointed for a term of four years Dr. J. W. Fowler as superintendent.

Under the enthusiastic direction of Dr. Fowler, the present superintendent, Louisville is just completing one of the finest hospitals in the country, an interesting illustrated story of which is now in type for publication in The Modern Hospital.

Dr. Fowler visited a great many of the finest hospitals in the land preliminary to the completion of the plans, studied hospital architecture and equipment down to the last modern minute, and gathered a vast fund to add to his already great knowledge of hospital administration. Those of us who knew of the masterful way in which Louisville was approaching her problem felt that she was one of the few large cities that evinced sense enough to know, appreciate, and still further educate a competent hospital administrator.

The best hospital thinkers in the country value Dr. Fowler as one of the ablest men in the profession, and The Modern Hospital wishes to congratulate Mayor Buschemeyer on the wisdom of his choice, and we beg leave to predict that Louisville is to be one of the most fortunate hospital cities in the land.

Murders in Insane Hospitals.

Illinois is being advertised all over the Union as a state in whose hospitals for the insane murders of patients have become common, almost daily, occurrences. The Lancet-Clinic, of Cincinnati, utters the latest commentary on this scandal in a two-page leading editorial, "and if any superintendent assists the coroner to put one of these accidental deaths in the light of publicity," says the Lancet-Clinic, "his character is assailed by a multitude of witnesses. He is relentlessly and libelously pursued. There is no end to the filth throwing. If he still persists, he finds it almost impossible to secure and keep other nurse attend-

ants." The writer finds that the nurse attendants who commit these atrocities "are defended by the most unscrupulous lawyers," and he is able to find not a single conviction, even of manslaughter.

Of course the *Lancet-Clinic* finds that the whole cause is politics.

We only half agree with this finding. The fact is that there are a lot of people who think that, without any preliminary training whatever, they can step into a state board of administration and direct the affairs of even so exacting and complex a service as the state's eleemosynary institutions and do justice to them. Given a board of administration made up of men who knew their business. and who have the courage of their knowledge, there is not a governor nor a legislature alive with courage enough to make a political dumping ground of these institutions, or who will have the audacity to defy the people with a policy of political thimble-rigging in connection with them. But this board must be elected by direct vote of the people, and not appointed by a governor who is supposed to be the sop dispenser of a political party.

Trust the people to make short work of any officer or clique or party which has earned a reputation for permitting abuses in their institutions that have the high and holy duty of safeguarding the sick, especially so helpless a class as the insane.

A Chicago Hospital Problem.

It is said that a committee of the Chicago Medical Society is setting out on a propaganda to create two additional county hospitals—one on the north side and one on the south side. It is further proposed to take pay patients in all county hospitals to make them "self-supporting."

It is just such fool propositions as this that have succeeded in practically eliminating the medical profession's influence in hospital affairs in this country. Two additional hospitals for the county, unless they be merely emergency stations, will bring up the per capita cost of caring for the county's wards to a prohibitive figure, and will necessitate the triplication of the tremendously expensive paraphernalia now inseparable from hospital administration.

Moreover, just now, when it is conceded by every hospital authority that "paying patients" in a hospital supported by taxation is all wrong, comes along this committee of men who know nothing whatever about real hospital problems, and propose an "innovation" of this obsolete character.

There can be but one reason for this commit-

tee's "propaganda," and that is to make a lot of new staff positions for doctors now out of a job. The medical profession of Chicago owes it to itself to repudiate this action before the people have occasion, once more, to eliminate medical influence from the hospitals and from their health problems.

The medical profession ought to be established in a definite leadership in all movements that have to do with the health of the people, but its members will succeed in this ambition only so far as their influence is exercised along sane, sound, intelligent, and, above all, disinterested lines, and this last proposal answers to none of these demands.

Responsibility for Tuberculosis Hospitals.

Elsewhere in this number of The Modern Hospital will be found a paper by Dr. John H. Gifford, of Fall River, Massachusetts, on the problem of who shall build and operate tuberculosis hospitals. This is a most vital matter to the people of this country, and indeed to the people everywhere.

Almost every state in the Union, following the lead of Massachusetts, has passed laws within the past two or three years compelling counties or cities, or other geographically determined communities, to build and operate these special hospitals. Now we find that the policies we have been following are not working out well, and that something different must be done.

The Modern Hospital had something to say on this subject last month, in an editorial way, in advocacy of the policy of state-built and state-operated tuberculosis hospitals. Dr. Gifford's excellent paper must certainly convince thinking people that the policy of compelling individual communities to bear this burden, without reference to local conditions, is not the last word on the subject.

Dr. Codman on "End Results."

In another part of this number will be found a short paper by Dr. E. A. Codman, of Boston, on end results of hospital treatment. Dr. Codman's original utterances on this subject occurred in a discussion of Dr. Hornsby's paper on "Standardization" read before the Section on Large Hospitals of the American Hospital Association in Boston, and published in the October number of The Modern Hospital. Dr. Codman's discussion was committed to paper and was turned over to the secretary, but was not published with the balance of the discussion.

Dr. Codman feels that, in justice to him, his discussion should have been published. As his

viewpoint is most instructive, and his position a radical one as well as a most reasonable one, we take pleasure in publishing the Doctor's paper.

EDITORIAL COMMENT.

Trustees of the Allentown (Pa.) hospital have announced through the newspapers of that city an increase in the ward rates for private patients from \$3 to \$4 per day. A statement accompanies the announcement that the cost of food per patient per day has increased in five years from \$1.06 to \$1.63. Of course these figures of cost are misleading, and should not be allowed to go unchallenged. Probably the hospital board meant that the whole cost per capita per day was represented in these figures. No hospital in the world spends any such amount of money for food.

The Michigan Supreme Court has held in a recent case that a hospital's records of patients are not open to the public, and that the hospital cannot be compelled to show its records of patients even in a disputed diagnosis for insurance purposes. The Mutual Life Insurance Company had declined to pay the insurance in the case of Vernon J. Willay. If this is the law, many precedents will have been overturned, and a material readjustment of policies must be instituted. It has been conceded in most hospitals that courts of record have a right to call for hospital records, and it has been the custom in most courts to call for the records on the request of either side in a case at issue.

A newly chosen "joint city and county" hospital board of Ft. Worth, Texas, began its work by holding secret sessions after the passage of a resolution forbidding any member to give any information on any hospital subject to the press, and appointing the secretary to give out all news. Ft. Worth had better watch that board. A hospital concerns the most vital interest of the people -the public health-and there should be nothing going on there that the people cannot know. It is rot to talk about guarding the public interests during the letting of contracts by secret sessions of the board. No public interest can be guarded by secrecy. But the nimble fingers of an expert can purloin public money if no one is permitted to look while the job is being done, and the preliminaries at Ft. Worth have all the ear-marks of expert manipulation.

San Francisco papers are publishing columns of news about petty pilfering in the municipal hospitals, especially the city tuberculosis hospital. One Brown, a waiter, was found with a ham under his arm leaving the premises. Investigation led to a strong suspicion that there was a regular "system" of petty thievery, with an organization behind it. In the meantime Brown got a good lawyer, and is tangling the situation up in a mesh of technicalities. This is one of the evils of a politically run hospital system, and the Browns and other petty thieves will have the sacred mantle of the civil service thrown about them to handicap the activities of capable and honest administrators.

Louisville is agitating a proposal to place its new million-dollar hospital in the hands of a commission, with the avowed intention to take it out of politics. What difference does it make whether a municipal hospital is run directly from the mayor's office or by a commission, if the commission is to be appointed by the same mayor. As a rule, a man charged directly with a duty, subject to the approval of the people, will come nearer to doing what the people want done than if the same man can appoint a commission and hide behind the commission when trouble comes. He can easily play politics in the latter case, and compel his commission to carry whatever odium may come; he can even remove the commission, or a member, if the odium grows too great for him. Better place the responsibility first hand; one then knows who is actually responsible when things go wrong.

Blood Transfusion in 1666.

A reader of the Journal of the American Medical Association (1914, LXII, 147) quotes the following from Samuel Peppy's diary, which he believes to be the first account of the transfusion of blood:

"Nov. the 14th, 1666. Dr. Croone told me that at the meeting at Gresham College tonight (which, it seems, they now have every Wednesday again) there was a pretty experiment of the blood of one dog let out (till he died) into the body of another on one side, while all his own run out on the other side. The first died upon the place, and the other very well, and likely to do well. This did give occasion to many pretty wishes as of the blood of a Quaker to be let into an Archbishop, and such like; but, as Dr. Croone says, may, if it takes, be of mighty use to man's health, for the amendment of bad blood by borrowing from a better body.

"Nov. 16th. This noon I met with Mr. Hooke, and he

"Nov. 16th. This noon I met with Mr. Hooke, and he tells me the dog which was filled with another dog's blood, at the College the other day, is very well, and like to be so as ever, and doubts not its being found of great use to men, and so do Dr. Whistler, who dined with us at the tavern."

Strange as it may seem, war, the destroyer, had more to do with the establishment of hospitals than all other influences combined. And wars have come and gone, and oftentimes their only monument has been a hospital. What came of the Crimea? Only Florence Nightingale. What have we left of the crusades and the "holy wars"? Hospitals all over Europe, built by the knights, whose dying followers compelled them to halt on their way to fight the infidel.



Albert Allemann, M. D., Foreign Literature.

Army Medical Museum and Library, Office of the Surgeon-General
U. S. Army.

Frank B. Martin, Domestic Literature.

Army Medical Museum and Library, Office of the Surgeon-General U. S. Army.

Construction of Hospitals, Asylums, and Kindred Establishments (Costruzione degli ospedali, ospizi et stabilimenti affini). C. M. Belli. Ulrico Hoepli, Milano, 1913, 507 pp., 12mo.

The author, who is professor of hygiene at the University of Padua, gives in this manual a complete view of modern hospital construction, illustrating the various systems by numerous plans and views of the most famous hospitals in the world. The work is divided into two parts. The first part treats on the construction of general hospitals. The author first gives a historical review of the development of hospital construction from ancient times to the present day. He then considers the three great types of modern hospitals-the corridor, the pavilion, and the combined system. With regard to the location of a hospital, he considers a moderate elevation the most suitable place for a hospital, because the conditions are favorable to natural ventilation and to carrying away the rainwater and sewage. In cold climates the hospital is best built on the southern slope of a hill to protect it from the cold winds, while in warm climates the building ought to have a northern exposure. If located in a plain, the hospital ought to be raised on a substructure. If placed near a populous center, the hospital should be so situated that the wind carries the smoke, dust, and vitiated air of the city away from it. To avoid noise, a hospital should not be located near a public highway, railway, street car line, factory, etc. The soil should be impermeable, or, if permeable, the layer carrying the subterraneous water should be very deep.

In Chapter VII the author discusses the number of beds with regard to each room and to the whole building. An ideal hospital would have a separate room for each patient, but, as the public conscience has not yet advanced so far, the planners of a hospital should divide the building into as many and as small rooms as possible. The German writers content themselves with 10 to 12 beds per sick room, while French authors, like Reverdy and Martin, hold that no room should contain more than 4 to 6 beds. At any rate, there is a tendency in modern times to diminish the number of beds in each room.

With regard to the number of stories, Belli considers the one-story pavilion best adapted to the purposes of a hospital. He says, however, that of late years there has been a tendency to pay less attention to the importance of the number of stories, and recent English hospitals have been built with three and even more stories. A few years ago Sarason, of Paris, proposed a new style of pavilion, which would contain four or more stories, but constructed

in such a manner that each story projects on its southern front beyond the story above it, thus forming a number of terraces, but this form of construction was severely criticised by Rubner at the International Congress of Hygiene at Berlin.

The author devotes a special chapter to isolation rooms. He says that, while it has not been possible so far to provide a separate room for each patient, yet there is a certain number of patients for whom it is indispensable to have a separate room, and in each pavilion such isolation rooms should be provided to receive patients who are dangerously sick, moribund, or delirious, as well as patients who are suspected of having an infectious disease.

In Chapter VIII the author discusses the principal types of pavilions—the rectangular pavilion, the pavilion with a corridor, and the circular or octagonal pavilion. In the first type the accessory compartments are at one extremity of the pavilion, so that the patients' ward receives light and air from three sides, or they are at both extremities or in the center of the building. In the second type the location of the accessory compartments is quite irregular. differing in almost all the hospitals of this type. In the circular and octagonal pavilions the accessory compartments project from the main building, forming an annex. Numerous plans illustrate the various types.

Chapters IX to XIII are devoted to illumination, ventilation, water supply, and sewerage.

With regard to the surgical division, the author holds that the antiseptic method in the treatment of external lesions does not remove the danger of infection, and that it is necessary to separate the septic from the aseptic cases, and, if possible, the two sections should be in two separate pavilions.

Part II treats on the construction of special hospitals. The author discusses at length isolation hospitals, tuberculosis hospitals, special hospitals for surgical diseases, lying-in hospitals, pediatric hospitals, hospitals for the insane, clinical hospitals, rural hospitals, asylums for incurables, and barrack and tent hospitals.

It is impossible in such a short sketch to give a complete view of the excellent qualities of this book. The author has devoted extreme care and diligence to his work, and it is evident that he has made himself familiar with the plans and construction of all the great hospitals existing. The work is rendered all the more valuable as it contains no less than 253 plans and views of famous hospitals all over the world.

Cook County Tuberculosis Hospitals. Ill. Med. Jour., 1914, XXV, 40.

The committee on Cook County Tuberculosis Hospitals has made the following recommendations:

For the Oak Forest Tuberculosis Hospital:

- 1. Capacity, 600 after the new tuberculosis hospital and eight open-air cottages are constructed.
- 2. One physician for each 50 patients, graded as follows for 600 patients: one head physician, \$2,400 plus maintenance of self and family; three assistant head physicians, \$1,800 plus maintenance; eight assistant physicians, \$1,500 each plus maintenance.
- 3. Nurses. One nurse for each 10 bed patients; one nurse for each 15 ambulatory patients. Of these nurses there should be for every 50 patients one graduate nurse from a recognized training school. These nurses should be graded as follows for 600 patients: one head nurse, \$1,800 plus maintenance; one assistant head nurse, \$1,200 plus maintenance; ten graduate nurses, each at \$840 plus maintenance; thirty-three female attendants at \$540 to \$600

4. Diet. Employment of a trained dietitian, whose duty would be the supervision of the food supplies received in the preparation of the patients' diet, of the quantities of various foods used, of the method of preparation of the diet as well as the method of serving same. Said dietitian to receive a salary of \$1,800 per year plus maintenance.

5. Laboratory. Appropriation of \$2,000 to purchase laboratory nose and throat and medical equipment for

thorough study of cases.

6. Visiting nose and throat physician. Employment of visiting nose and throat physician, one or two afternoons per week, at compensation of \$10 an afternoon.

7. An appropriation for the purchase of equipment necessary for open-air treatment of suitable cases.

8. A full quota of domestic service, rendering unnecessary the assignment of work to patients whose condition forbids it.

For the Tuberculosis Department of the Cook County Hospital:

1. Early restoration of its full capacity of 324 beds, which is curtailed to 220 beds at present by the building operations at the institution.

2. Establishment in this department of two diagnostic wards of 6 beds each to start with, one ward for men and one ward for women, for the accommodation of suspicious cases of tuberculosis, which require for their diagnosis thorough hospital study.

Employment of a resident head physician at a salary of \$1,800 and maintenance.

4. A special staff of four attending laryngologists.

5. An appropriation of \$1,500 for purchase of labora-

tory and nose and throat equipment.

6. Employment of a trained dietitian, whose duty would be the supervision of the food supplies received in the preparation of the patients' diet, of the quantities of various foods used, of the method of preparation of the diet, as well as the method of serving same. Said dietitian to receive a salary of \$1,800 per year plus maintenance.

7. A sufficient increase in the domestic service of the department to keep it in most sanitary condition, and assist the nurses in the arduous labor connected with the care of bedridden patients.

8. Intern service to cover one consecutive month instead of the present interrupted service of three weeks, and the terms of service of interns overlapping each other.

9. Extension of the nursing service of the general hospital to the tuberculosis department.

Paris Hospitals (Pariser Krankenhäuser). Hanna von Pestalozza. Ztschr. f. Krankenpflege, Berlin, 1913, XXXV, No. 10.

The new Pitie Hospital of Paris is a classical model of modern hospital construction in a great city. All the improvements in modern hospital science have here been applied. The total length of the building complex is 650 meters, with a depth of 190 meters. At the left of the main entrance is the consultation building. It contains waiting rooms for men and women, consultation rooms for surgical, dental, ear, nose, eye, and internal diseases. At the entrance of the central street stands the amphitheater and the great lecture hall. On the left are the six medical divisions, and on the right the surgical divisions, with aseptic and antiseptic operating rooms. Further on we come to the lying-in institution, embracing several pavilions. This new hospital has room for 988 patients; 480 beds for medical and 308 for surgical cases, 10 for nervous patients, 42 for children, and 63 for new-born infants.

An old hospital is Saint Antoine, in the district of the

same name. It was erected in the twelfth century and was formerly a convent. During the Revolution it was changed into a hospital, but many new buildings have since been added.

At Aubervilliers, near Paris, stands the Claude Bernard Hospital. It is a hospital for infectious diseases only, and is isolated from the town of Aubervilliers by parking and a high wall and from the city by the fortifications. It is a beautiful structure, and is provided with all the modern appliances to combat infection.

The venerable Hotel Dieu stands in the center of Paris. Founded by King Clovis in the seventh century, it has in the course of time undergone many changes. It was twice destroyed by fire. The present buildings were erected between 1868 and 1878. An extension is now planned to raise the number of beds from 600 to 1,000.

Bicetre Hospital is situated outside of Paris, twenty minutes from the Italian gate. It is located on a hill, with a beautiful view of the city of Paris. This immense hospital, with its streets, squares, and rows of buildings, its parks and gardens, and its numerous officials, makes on the visitor the impression of a city. This hospital contains no less than 3,000 beds. Of special interest is the division for weak-minded children. It is surprising to see what can be accomplished in the education of these poor children, and what gentleness, devotion, and enthusiasm can do to elevate their condition.

Address of Harvey Cushing Before the International Medical Congress in London. Editorial in Australasian Med. Gaz., Sydney, 1913, No. 18.

Prof. Cushing refers to realignments in greater medicine, and outlines the character of the hospital of the future. An evolution of the modern hospital will result in more intimate cooperation of the general practitioner, the specialist, and the institution. An institutional treatment of sick of all classes will be the practice of the future. The worst feature of disease is the impossibility of treating the average patient at home, unless he possesses wealth. In the public hospital the poor patient is provided the best possible treatment. His case is investigated by a clinician. with the aid of a special pathologist and biochemist. An examination is essential for a correct diagnosis of his particular disease and its satisfactory treatment-features that are unattainable and unavailable at the home of the poor patient. Prof. Cushing refers to the private hospitals having generally no staff or experts, and to the increased fees where specialists' advice is required. He claims there must be a modification in the conduct of the public hospital for others than indigent poor, or the private hospital must be reorganized; it must have one inclusive fee, which will take in the service of the clinical specialist, pathologist, et al., or an intermediate hospital for those able to pay moderate fee. The wealthy rich look out for themselves. The idea of the intermediate hospital seems to have appealed to many, yet no serious attempt is being made for its general establishment. The obstacles are that it seems unfair to expect a philanthropic public to support a public hospital, unless patients or their friends give in proportion to their means. A resolution of the Australian Medical Congress condemns the idea of patients paying in public hospitals. Prof. Cushing would have the hospital staff paid for service, with no privilege of outside practice, but he does not suggest how they are to be paid. The editor claims that patients are not animals, to be treated mechanically; that individual characteristics are to be considered, and temperament, heredity, etc., are to be studied. This, with the personality of the medical attendant, is of more value than

other forms of therapeutics. In his opinion the subject of the modern hospital and its relation to the profession is full of difficulties, and the solution of the problem must depend largely on future social development.

Professional Responsibility for Faulty Hospital Organization. Lewis Stephen Pilcher. Year Book Pilcher's Hospital, New York, 1912-13, No. 3.

Attention is invited to criticisms of a Vienna otologist on conditions in American hospitals. He claims that there are too many heads to every department. That there is no regular system of post-mortems, and that under existing conditions Americans must seek special knowledge in foreign countries. The writer believes superintendents of hospitals possess too much power, and their authority should be limited to its "administrative" features. One man should be supreme in a hospital department, and the specialist should be capable of teaching and caring personally for all the cases. The author lays special stress on the imperfection in present hospital "methods" being due to the medical profession. The insistency of medical men for "appointments" to hospital positions sometimes amounts to scandal, resulting in diminished respect of lay managers of hospitals for the medical staff. A regulation exists in some hospitals that no member of the visiting staff shall be a member of the board of managers. A special knowledge, which only the training of a physician can give a hospital's complicated organization, is appreciated only by physicians doing the work. As the responsibility for results is to be borne by the physician alone, he is consequently the one under whom the professional work of such an institution is to be carried on.

Management of Hospitals and Kindred Institutions (Ordinamento dei servizi negli ospedali ed instituzioni affini).
C. M. Belli. Ulrico Hoepli, Milano, 1914, 351 pp., 12mo.

This manual of hospital management is a complement to the author's work on hospital construction, reviewed elsewhere. It is the author's aim to raise the standard of hospital management in Italian hospitals, as, according to him, the Italian hospitals are inferior in construction and arrangement to those of foreign countries. Italy is also behind the times in scientific hospital management. Antiquated methods and customs are still followed, and the hospitals are hampered by short-sighted considerations of economy. A law governing the management of the Italian hospitals was promised by the Government years ago, but nothing has been done so far. The hospital physicians are frequently selected without a competitive examination, and, if an examination is held, it is adapted to the age, title, and knowledge of the candidate previously selected.

The work is divided into two parts. Part I treats on general hospitals. A large space is devoted to the alimentation of the patients. Part II treats on the management of special hospitals. As the book considers chiefly Italian conditions, it is, of course, of greatest value to Italians.

Social Factors in the Prevention of Insanity. Frank P. Norbury. Lancet-Clinic, 1914, CXI, 39.

The social factors are becoming increasingly prominent in medicine as we advance toward the ideal of preventing, rather than curing, disease. Everywhere the importance and value of the individual is being emphasized. To understand man as a social being, we must have a comprehensive view of his instincts, tendencies, and traits. To get such a view, the facts of his daily life must be observed. Norbury shows how the application of these principles is especially important in mental disorder, where external or remote conditions often have more influence than seemingly direct ones. Some of the problems demanding study in their bearing on the question are the housing of people, the aimless aggregation of the crowd, the popularity of the saloon and the drinking of alcoholic liquors, prostitution, the crowding of cities, the depopulation of rural districts, and the effect produced on immigrants by their radical change in environment. The best way to limit insanity is to understand and combat all social conditions which tend to increase it. He believes that the alarming increase in insanity so frequently asserted is apparent rather than real.

A New Medical Organization in England. Jour. Am. Med. Assn., 1914, LXII, 149.

The bitter feeling engendered by the passage and enforcement of the British national insurance act has culminated in the organization of a new medical body known as the National Medical Union. It represents the nonpanel practitioners-that is, the physicians of England who for various reasons declined to go on the list of physicians available in each locality for services under the insurance act, of whom there are about five thousand. The reason for the organization seems to be opposition to the insurance acts themselves and opposition to the management of the British Medical Association. This association first opposed the acts, but later many of the members enrolled in the panels, so that the new organization is made up largely of members who have conformed to the original policy of the association itself. The Medical Press and Circular says that there is little doubt that the administration of the British Medical Association leaves much to be desired, and that there is room for another medical organization to undertake important functions either neglected or inadequately performed by the British Medical Association as now conducted.

Establishment of a Nurses' School in the Vienna General Hospital (Errichtung einer Krankenpflegeschule im Wiener Allgemeinen Krankenhause). Oesterreich. Sanitätswesen, Wien, 1913, XXV, No. 37.

The Government of Austria is making great efforts to raise the profession of nursing, and for this purpose intends to establish a number of nurses' schools. The first school of this kind was opened October 15, 1913, at the Vienna General Hospital. It is financed by the state, and is under the supervision of the director of the hospital. Instead of the merely empirical training the nurses have until now received, the school will give them theoretical and practical instruction in a course lasting two years. The school does not only train nurses for the nine hospitals of Vienna, but will receive any persons who wish to devote themselves to nursing children, in families, insane hospitals, etc. The state provides board and lodging for the pupils. Those pupils who bind themselves to serve after graduation three years in any of the Vienna hospitals, with the usual pay, are received entirely free, and the others have to pay 70 crowns (about \$40) during the first year.

The New Building of the Augusta Hospital at Berlin (Der Neubau des Augusta Hospitals zu Berlin). C. A. Ewald. Berl. klin. Wchschr., 1913, L, No. 50.

This Hospital was founded by Queen Augusta during the war of 1866. It was the first barrack hospital built in Germany. It was then supposed that a barrack hospital would not only be much cheaper than a stone structure, but that the hygienic conditions would be superior to an ordinary hospital. These expectations were, however, fulfilled only to a moderate extent. In the course of time the wooden structures required frequent repairs, so that in the long run the hospital cost just as much as a stone structure. As the barracks were constructed on a faulty plan, the hygienic conditions were not equal to those of an ordinary hospital. For these reasons the wooden barracks were torn down in 1912 and one large stone building erected. The cost of this new structure was 460,000 marks (\$115,000), or 5,750 marks (\$1,437) per bed.

Bichlorid as a Germicide. Med. Council, 1914, XIX, 5.

The recent agitation against the use of bichlorid of mercury tablets by laymen has raised the question as to the necessity for the use of this chemical in surgery. The claim seems fairly well sustained that when it is precipitated from the germs they resume their vital functions. Bichlorid is irritating, even causing necrosis in some cases where the tissues are devitalized. It does not require much absorption of bichlorid to cause most alarming symptoms. It is quite inert as an antiseptic in the presence of albumin, with which it combines. It is inert in the presence of fat or soap, or of strong alcohol. Aqueous solutions are very unstable, the bichlorid being reduced to calomel. It corrodes instruments and roughens the hands. It is a serious question whether surgeons should continue the routine use of this highly toxic and often disappointing agent.

The Pedro Mata Institution (Reus Hospital for the Insane)—Instituto Pedro Mata (Manicomio de Reus). J. Brianso Salvado. Gaceta medica catalana, Barcelona, 1913, XLIII, No. 865.

The hospital is situated about two miles from the city of Reus in the fertile and beautiful plain of Tarragona. It consists at present of eleven separate and distinct pavilions, but when completed will embrace eighteen pavilions in all. A large street passes through the middle of the establishment, separating at the same time the two sexes. Each pavilion has its own garden. The different classes of patients are kept separate. There are separate divisions for idiotic insane, for epileptics, the querulent insane, for the violent insane, and for quiet patients. The "no restraint" system is adopted throughout, and only dangerous patients or those with suicidal mania are kept separate.

The Need of Free Little Nell Beds. Irving W. Voorhees, Med. Rev. of Rev., New York, 1913, XIX, October.

In his address before the American Dickens League, at the dedication of the first Little Nell Bed in the Health Home, West Coney Island, the speaker refers to the specific work of the League and to its two great civic duties—which are to commemorate the life and work of the great author and the endowing of beds for sick children in hospitals everywhere, the latter project in line with the life and works of Dickens. He claims that had Dickens been an American millionaire, he would have been a practical philanthropist; that he would have enlisted the sympathies of large-minded, generous men of wealth and induced them to loosen up their purse strings; that the Little Nell movement would be today an established fact, a working reality.

Observation Wards and Noncontagious Diseases. Lancet-Clinic, Cincinnati, 1913, CX, No. 25.

The New Cincinnati General Hospital will have a feature that will doubtless be common in the future municipal and urban hospitals. It is to consist of "observation wards" connected with the receiving department. Emergency cases are often taken in when proper diagnosis is essential for early and correct treatment. When discrimination between alcoholism and hemiplegia or lineal fracture of the skull beneath a scalp wound of a patient who has been drinking should be made, in justice to the police and the protection of the patient's reputation, a careful diagnosis in the unconscious or semi-conscious state is to be reached. In doubtful cases the patient will be received in observation wards, and treated by those whose experience and training will enable them to arrive at correct diagnosis.

Recent Developments in Germany. Jour. Am. Med. Assn., 1914, January 10.

The difficulty between the German physicians and insurance companies in regard to the insurance laws is as yet unsettled. A proposal has been submitted to the Government by representatives of the medical departments of three of the German universities, but has not yet been passed upon. The physicians will take care of any patients as individuals, but not as members of the insurance societies. Physicians are directed to charge exactly the same fees as they would receive if they were doing the work for the insurance societies. The British Medical Journal, commenting on the German situation, says that if the profession is strong enough and sufficiently united to carry out the fight as indicated in the instructions of the Federation of German Doctors' Unions, a complete victory for the physicians is sure to be the result.

Occupational Diseases. Hospital World, 1914, V, 6.

An important step forward has been taken in the Massachusetts General Hospital in its out-patient department in the establishment of a system designed to obtain accurate information on occupational diseases. The new case history blank sets forth what the man may be doing daily which predisposes him to certain diseases. Under this new system it is expected there will be a record of fifty thousand cases in the course of five years, and from these statistics Dr. Edsall, of the hospital staff, a recognized authority on this subject, believes it will be possible to form sound opinions regarding the causes of occupational disease and the measure of risk which is being run by the workers. This is worthy of imitation by other hospitals and physicians.

Report of the Committee on the Standardization of Hospitals. Boston Med. and Surg. Jour., 1914, CLXX, 71.

This committee urgently recommends that a uniform method of keeping statistics be adopted by all American hospitals. Statistics from different hospitals as now kept cannot be compared with one another and have any value. They also urge that a follow-up system be adopted, and that the work of the Carnegie Foundation be extended so as to classify hospitals as well as medical schools with regard to efficiency.

Clean Hands. Douglas H. Stewart. Med. Council, 1914, XIX, 18.

Stewart claims that granulated sugar is an excellent cleanser and antiseptic, and recommends it for cleansing the hands instead of soap. With sugar and water, followed by chlorid of lime and water, the physician's hands may be rendered sterile. He describes experiments in cleansing his hands with it after they were soiled with pus, grease, and street dirt. Cultures after cleansing showed no pathogenic germs.

Surgeon Responsible in Spite of Nurse's Count of Sponges. Jour. Am. Med. Assn., 1914, LXII, 154.

In the case of Davis vs. Kerr the Supreme Court of Pennsylvania reverses a judgment rendered for the defendant and orders a new trial because it does not consider that it was sufficient defense merely to show that he relied on a count of sponges made by a nurse. It was necessary for him to acquit himself of negligence with respect to it by showing that it was so hidden and concealed that reasonable care on his part would not have disclosed it, or that conditions were such that in his professional judgment further exploration by him for sponges would have endangered the safety of the patient. He must show, in other words, that he did all that reasonable care and skill would require.

The Larger Service. Hospital World, 1914, V, 8.

Two large public hospitals have recently been censured for a similar offense—that of having turned away a man for drunkenness. In both cases the men were taken to police stations and died there within a few hours. It is questionable whether a general hospital, supported by public funds, should turn anyone requiring medical treatment from its doors, no matter what the disease. Large hospitals should have individual probation wards, where any such night cases could be placed and made temporarily comfortable until there is opportunity for thorough diagnosis.

Medical Students and Nursing. Internat. Hosp. Record, 1913, December 17, 1.

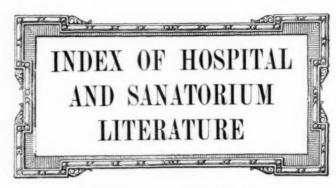
The suggestion is made that new medical students be given experience in nursing in the male wards of the hospital. This should be done under careful supervision, the expense of the supervision being borne by the students' fees. A nursing service of at least a month, preferably two months, should be required of each student. Part of the service should be on night duty, as conditions are very different at night. It could probably be arranged that most of the students should do their nursing during the summer, just as the engineering students have their "field work" at that time.

Field Hospital Equipment. Indian Med. Gaz., Calcutta, 1913, XLVIII, No. 12.

In an editorial the writer refers to recent important modifications in equipment in the Indian service. An Indian field ambulance carries 75 different drugs and a general hospital 178, the corresponding numbers in the British service at home being 42. The supply of dressings, however, has been very short. Under new arrangements boric lint is abolished, and for 35 yards of cyanide gauze is substituted 340 of cyanide and 140 of plain gauze. Bandages are increased from 174 to 295. Iodine metallic is adopted as the new disinfectant and linen thread supplants the expensive and perishable ligatures.

Infant Mortality in 1913. Boston Med. & Surg. Jour., 1914, CLXX, 107.

A report from New York shows that the infant mortality rate in that city in 1913 was the lowest on record. The infant death rate for the year was 102 per thousand births. Last year it was 105.3 per thousand. This means a saving of over three out of every thousand babies born as compared with last year. The general health report of the city for 1913 shows a reduction in the death rate per thousand for all ages from 14.11 to 13.76.



Albert Allemann, M. D., Foreign Literature.

Army Medical Museum and Library, Office of the Surgeon-General
U. S. Army.

Frank B. Martin, Domestic Literature.

Army Medical Museum and Library, Office of the Surgeon-General U. S. Army.

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Tuberculosis in Children.

The New York Department of Health has just published a most instructive epitome of some work done by Dr. Alfred Hess, showing the great communicability of tuberculosis as affecting children.

The children examined by Dr. Hess were part of the population of a large infant asylum in New York, in which the Pirquet test was employed as routine practice every six months on every child. In the case cited seven out of ten tested were negative. They were placed in charge of a nurse who, it afterward was learned, had tuberculosis. In three months after being committed to the care of this nurse all the ten children gave positive Pirquet reactions. Dr. Hess' chief development was the necessity to guard children in their homes from infection by older people.



LONDON LETTER.

The New Empire Hospital for Paying Patients—Description of Its Architectural Construction—How It is to be Managed.

London, January 15, 1914.

As in previous letters I have, on several occasions, made mention of the forthcoming opening of the new Empire Hospital for paying patients, some account of this institution may be now not unacceptable, for the hopes of its founders have now been carried into effect—at any rate to the extent that the hospital is now un fait accompli, and that it has been successfully launched on what everyone hopes will prove a beneficent and not unprofitable career. During the last few days, with admirable hospitality, the directors have thrown the institution open to medical and other visitors, and all have had an excellent opportunity of pursuing for themselves

the most critical inquiry into the plan, aims, and methods of those who are responsible for its inception. As I think I have already stated, the idea is to wipe away, in some measure at any rate, the reproach so often hurled against the hospital system of London-that so little is done for our middle classes-and incidentally it is hoped that visitors from our colonies (and surely from the United States as well) may find in London something of the convenience in times of sickness that is so ready in their own great and even lesser cities. Well, the site occupied by this Empire Hospital is very central-only a few minutes from our Houses of Parliament and from Westminster Abbey, to give two familiar landmarks, and yet in a quiet, airy, and sunny square, singularly secluded from the din and roar of our greater highways, and yet easily accessible to everyone from everywhere.

The building itself, an unpretentious but suitable edifice, constructed of brick and stone in what may be called the hospital variety of early eighteenth century architectural style, occupies what I fancy you would designate as a "corner lot," thus securing the greatest amount of light and moving air possible. At the present moment accommodation is available for 40 patients in separate bedrooms. Accommodation for the staff is provided on each floor in the wings or return flanks. The two operating theaters are on the highest floor, and appear to be very perfectly equipped. I heard no word of adverse criticism from my surgical friends. An anesthetising room, as well as rooms for recovery, are of course provided, and the sterilizing arrangements seem adequate. The operating theaters, anesthetising room, sterilizing room, and doctors' room are isolated from the patients'



Fig. 1. Empire Hospital-Front and side view.

rooms, and especially ventilated in order to prevent fumes penetrating into other parts of the building. Special care has been taken in the provision of what is perhaps a little unusual in an institution of such moderate size—complete installation of electric light, radiant heat, and other kinds of baths, while it goes without saying that an upto-date x-ray room has been very well fitted up and elaborated.

The kitchens, in the basement, are very good indeed. The whole of the cooking is to be done by electricity, and the most modern appliances have been purchased, but, of course, gas is installed as a standby. Speaking generally, the construction of the whole building struck me, as an old medical officer of health, to be very good. Enamel

protected in order to render the building as a whole fire-resisting. Precautions have been taken to afford ready means of exit in case of fire by the provision of external staircases of ample width for the passage of patients on stretchers. The building is divided into three sections by means of fire-resisting doors in order to lessen the risk of fire spreading and involving the whole of the building at one time. The heating is furnished by low-pressure hot water, a radiator being fixed in each patient's room in addition to the open fireplace. The architect is Mr. W. Ernest Hazell, F. R. I. B. A., and Messrs. Holloway Bros. (London), Ltd., were the builders.

The matron—or, rather, lady superintendent—Miss Macintosh, is well known as the former capable head of

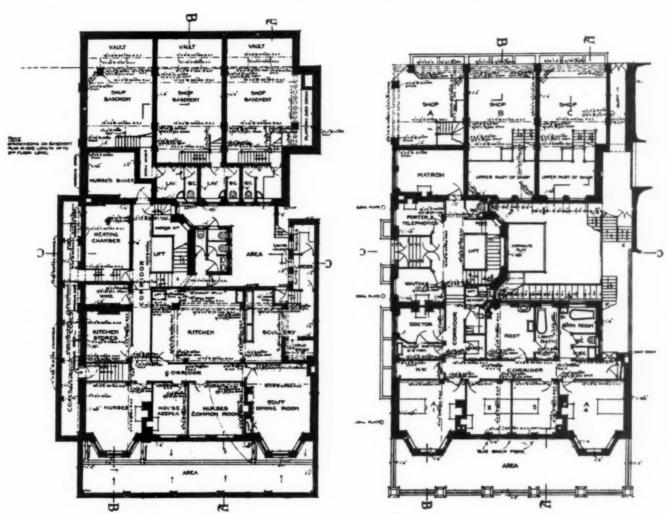


Fig. 2. Empire Hospital-Basement.

Fig. 3. Empire Hospital-Ground floor.

has been freely used, the tilework is excellent and lavish, and all floors have been covered with one of the special cement and stone mixtures now found to be so satisfactory. The furnishing generally has been carried out with considerable taste, and quiet and harmonious tones of gray and lavender are echoed from the walls and repeated on the few but necessary hangings. The special woodwork was all, I believe, supplied by Messrs. Heal, who are known as being "specialists" in bedroom plenishing, and the adoption of skilled advice is everywhere manifest.

Hollow tile construction has been adopted for floors and partitions to minimize as far as possible the transmission of sound. Floors, partitions, and staircases, are constructed of incombustible material, and all steelwork is the nursing service of one of our smaller special hospitals, and the administration of the institution is, I gather—for the present at any rate—delegated to her by the board of directors. The wisdom of having selected so able an incumbent of this important post is the more apparent when I say that no resident medical officer is—yet awhile at any rate—to be appointed, but that a panel of neighboring practitioners, willing to act in emergency, is to be formed, and that from this panel those physicians and surgeons attending cases in the hospital will select deputies if they desire. Any qualified medical man may send his own cases into the hospital and operate upon them if he wishes, and this concession will be appreciated by many who find somewhat irksome the restriction im-

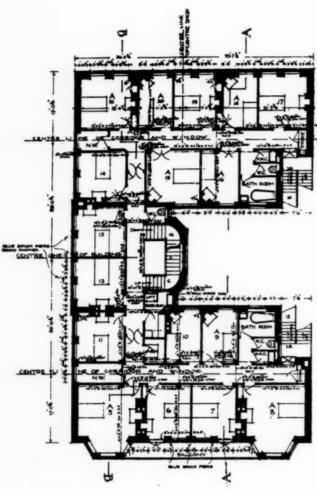


Fig. 4. Empire Hospital-First floor.

posed in at least one somewhat similar institution—that only surgeons attached to the staffs of recognized hospitals may operate therein. The fees that are to be charged will, it is stated, vary from three guineas a week upward, according to the accommodation required, the maximum fee being in the neighborhood of ten guineas per week. These fees are, roughly speaking, about one-third less than those charged in "nursing homes," wherein the accommodation and equipment is distinctly inferior. But, of course, the attendant physicians and surgeons will charge their own fees, and are under no obligation to accept less than would be their custom elsewhere.

In a word, the promotors of this enterprise, while conducting their undertaking on strictly business lines, do not intend to make greater profits than will provide a reasonable return on the capital invested, and those who, like Lord and Lady Scarborough and others, have taken such a kindly and withal very practical interest in its organization, have a very sincere desire that their efforts may result in considerable alleviation of the manifold anxieties that serious and surgical illness entails on those who are neither rich nor poor.

Forty beds is no great number, to be sure, and there are several millions in London. But, still, new ground has been broken, something has been attempted in a new manner, and much care and attention has been given to the perfecting of details in a way that has not been dictated by the mere hope of finding pecuniary reward in interest on capital invested. The Empire Hospital, if successful financially, as all hope it may be, will pretty certainly be the forerunner of a long line of similar institu-

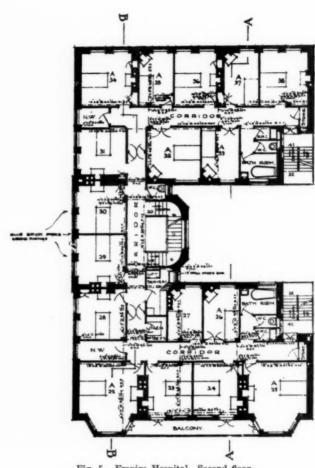


Fig. 5. Empire Hospital-Second floor.

tions. But, let it be remembered, it is free from all endowment or charity, and, to succeed, it must fulfill two requisites—it must, as doubtless it will—be efficient and it must pay.

F. G. CROOKSHANK, M. D.,

Physician to the North-West London and Hampstead General Hospital.

LETTER FROM PARIS.

Paris Hospitals Unlike Those Elsewhere—Some Historical References—The Control of the Hospitals.

Paris, January 10, 1913.

There is no use trying to team up Paris with any other city in the world in any particular; it can't be done. In texture, consistency, color, modeling, thought, action and reaction, play, work, in sickness and in death, Paris is different from any other place. Compare Charkieh with Chattahoochee, or Kamchatka with Kansas City, if you choose, but let's not do any comparisons of the Paris hospitals with hospitals anywhere else. Bearing this in mind, then, we won't be shocked when we come here from Berlin, or Vienna, or London, or East St. Louis to make our rounds of the institutions in which the city of Paris cares for its sick poor.

All of the municipal hospitals and asylums of Paris are under the management of the Assistance Publique, the administration of which is situated at No. 3 Avenue Victoria and No. 4 Quai de Gesvres. The director is M. Mesurerv. The Assistance has control of over forty in-

stitutions, more than thirty of which are hospitals. The hospital beds number some 16,000. Some of the hospitals are large and some are small. The St. Louis Hospital, principally for skin diseases, has 1,480 beds for cutaneous affections alone, and also 58 beds and cribs for obstetrics, 464 for surgery, and 84 for medicine. In this hospital there are six chiefs of service for dermatology, each one serving one day a week in the out-patient department and following the admitted cases in the hospital the succeeding days. On the other hand, hospitals as small as the Hopital d'Enfants, with 38 beds, comes under the direction of the Assistance. A number of these general hospitals run from 300 to 700 beds, and among them we may include: Hopital Beaujon, 208 Faubourg Saint Honore, 543 beds; Hospice de Bicêtre, 1,852 beds; Hopital Bichat, boulevard Ney, 193 beds; Hopital Boucicaut, 78 rue de la Convention, 237 beds; Hopital Broca, No. 111 rue Broca, 307 beds; Hopital Broussais, 96 rue Didot, 275 beds; Hopital de la Charité, 47 rue Jacob, 596 beds; Hopital Cochin, 47 Faubourg Saint Jacques, 500 beds; Hopital des Enfants-Malades, 149 rue de Sevres, 636 beds; Hotel Dieu, 607 beds; Hopital Laennec, 42 rue de Sevres, 596 beds; Hopital Lariboisière, rue Ambroise Paré, 970 beds; Maternité, 119 boulevard de Port Royal, 207 beds; Hopital Necker, 151 rue de Sevres, 454 beds; Hopital de la Pitié, 83 boulevard l'Hopital, 880 beds; Hopital Saint Antoine, 184 Faubourg Saint Antoine, 815 beds; Hospice de la Salpêtrière, 47 boulevard de l'Hopital, 3,834 beds; Hopital Tenon, rue de la Chine, 878 beds; Hopital Trousseau, 158 rue Michel Bizot, 317 beds.

There are also several hospitals for contagious diseases, as the Hospital Claude Bernard and the Bastion, and even hospitals outside Paris, like the well-known Hopital Maritime de Berck-Sur-Mer, the hospice de Brevannes, Seine-et-Oise, which provides for tuberculosis and convalescent infants, and the hospice des Incurables, with 2,323 beds, at Ivry.

The most interesting thing about the Paris hospitals is their age. I have said in a previous letter that the great hospitals of Berlin are newer and more modern than our own. The Virchow Krankenhaus and the Charitè (as it stands today) are products of the last ten years. But here in Paris you will walk back into the middle ages frequently when you pass the gates of a hospital. Take the Hotel Dieu, for instance, which was founded in the seventh century. Of course there have been changes in the buildings since then; it was reconstructed in the twelfth century, and again in 1865-1877. Still, until the sisters of charity were driven out of the hospital a few years ago, much of the ancient atmosphere remained.

Then there is the old Saint Louis, ordered erected by Henry IV in 1607 for the treatment of the pest in honor of the king Saint Louis, who died from this disease. The battered old gray stones of the pavilion of this hospital look as old as the Roman ruins in the garden of the Cluny. Again, there is the Salpêtrière, erected by Louis XIII. for an arsenal, and getting its name because saltpeter was made there. Louis XIV. reopened it as a general hospital. Some of its buildings date from 1654.

But it is inside such old gray walls as these that one sees a type of hospital life that touches his sentimental side in the way the German or the Englishman, or even the American, has little conception of, although he may have passed much of his life within hospitals.

As an example of what I mean, let me translate briefly the description of the Maternité Hospital, from Hellé, by Marcelle Tinayre.

". . . and we found ourselves in the cloister, which

incloses on three sides the interior court of the hospital. A gallery ran below the arcade, and I perceived on the whiteness of the curtains the silhouettes of the inmates, of nurses laughing in the sun, with their plump babies. For a moment the odors from the kitchen and the pharmacy spread up the stairs. The maids pass, bearing baskets of plates and milk in iron vessels that strike together noisily in the sonorous gallery.

"Near the kitchen a great door opens on to a garden of yoke elms arranged in the style of the seventeenth century. We mount a majestic stairway, the steps of which have seen pass processions of religious jansenistes, and we stop at the stair head before a door bearing this inscription, 'Salle Baudelocque.'

"This room, which we enter, does not resemble the rooms of the new hospitals. Formed of old cells, of which one has destroyed the partitions, the room presents itself as a sort of lobby between a double series of opposed lodges, painted a soft green. Each logette is lighted by a large window and contains a bed and a cradle. In each bed there is a woman; in each cradle, a new-born. The atmosphere is sweet, heavy, and saturated with the odor of antiseptics. At times, among the whispers of the visitors and calls of the patients, a shrill cry of an infant mounts the long hall. An increasing light falls from the high windows on the pale figures and the white linen.

"Seated on their bed, some of the women talk with their visitors, who roll between their hands the traditional humble present, oranges wrapped in silk paper. They were the wives of workmen or small clerks of humble means, who came there habitually for the fifteenth or sixteenth time. They kept their infants, of which one sees only a bit of red flesh in creamy gown, and the first-born stand behind their fathers, stupid with surprise, their eyes large and round.

"There were others alone in their little room, and they appeared to expect no one. Some of them were very young, with the naive eyes of rustic madonnas, still tanned by the air of the fields. Some of them were almost old, of whom the gray hairs, the wrinkles, and the faded bosoms assailed my regard. Some of them were like savages, long in the flank, their fists doubled in their hair, closing their eyes in submission like sick beasts; others of whom the beautiful teeth have had too much laughter, and others of whom the tragic eyes have had too much tears. Each looked at me in passing, with envy, with curiosity, with indifference, and I tried to imagine the destiny that had brought them there, this lamentable maternal herd, wreckage of misery and of love, by whom life and suffering perpetuates itself."

Coming back to earth, let us see how these hospitals are conducted. First, as I said before, there is the Assistance Publique. This organization consists of a counseil ed surveillance, composed of thirty-three members plus the préfet of the Seine and the préfet of police. The hospitals, each and every one, must be conducted absolutely and exactly under rules and regulations laid down by this body. The director of this body, at present M. Mesureur, is an autocrat. Theoretically, at least, he alone possesses authority for every detail of hospital administration. Only he can employ and discharge help, authorize repairs, or expend a sou in any way. Of course he has his personal representative in every institution, but there is much red tape to be unrolled before even a worn door latch can be replaced. First an investigation into the life history of that door latch would have to be made; then an inspector would be detailed to make a physical examination of said latch. Provided the prognosis was bad, the official architect would

be called in to make an estimate on a new latch, and then finally, after looking over all the evidence in the case, the director-general would decide whether the hospital should be allowed a new latch.

Naturally, under such circumstances there is no conflict between the administration and the medical and surgical staff of a hospital, because the medical man don't even have a look-in as far as administrative affairs are concerned. As a doctor, he is supreme in his ward, but he has to accept that ward just as it is and with just what

happens to be in it.

Coming to the medical personnel of the hospital, we will first consider the relation of the university to the municipality from the standpoint of care of the sick and education. First of all, it may be stated that the university has no control of any of these institutions in the sense that they do in Germany. It is only by consent of the Assistance Publique and under certain conditions that a given number of wards in various hospitals are turned over to professors in the university to use as they see fit for clinical instruction. For instance, a medical service is assigned to the university at the Hotel Dieu, Laennec, Saint Antoine, and the Beaujon; there is a university surgical service at the Hotel Dieu, La Charité, Necker, and La Pitié; there is an obstetric service at Tarnier and Bandelocque; one in skin diseases at the Saint Louis, pediatrics at the Enfants Malade, genito-urinary at Necker and gynecology at Necker.

R. L. THOMPSON, M. D.,

Professor of Pathology, St. Louis University School of Medicine.

[To be continued]

LETTERS TO THE EDITOR.

The "Pure Drug" Law and Soap.

To the Editor of THE MODERN HOSPITAL:

When Congress passed the pure food and drug law, it included two soaps classed as drugs. The soap that is extensively used in surgery and for many skin troubles, besides being good for a multitude of household uses, comes under this drug act. It has been known for many years as the physicians' and surgeons' green soap or green oil soap.

To the majority of people this name may suggest that the soap is green in color, while in reality it is a golden yellow, transparent soft potash soap. The name is a technical name given it years ago, designating a standard make for special uses of the physicians. The name does not indicate the color.

Of late years the people are learning of the many medical uses of green oil soap. When the physician requests his patient to use green oil soap (in many cases under my observation), they go to the merchant to buy this potash soap, and are given a green-colored soft soap, a soap that is artificially colored. Perhaps the merchant thinks this is "green soap," and the customer uses it thinking the same, and serious consequences result from the color in the soap. Sometimes the soap is adulterated as well as colored.

If the soap is sold within the state, the federal government cannot do anything to protect the people. Our state legislatures should be encouraged to enact laws prohibiting the adulteration or coloring of this standard potash soap, so long known and recognized by this technical name. At any rate, will you be good enough to publish this so

that the many readers of your journal will know what to look for when they ask for this kind of soap?

WILBER M. KELSO, Oak Park, Ill.

Sterilization of Rubber Gloves.

To the Editor of THE MODERN HOSPITAL:

In reply to the article on the sterilization of rubber gloves in the "Queries and Answers" column of the December number of your journal, I wish to say that for many years it was a problem with us how best to sterilize them for the surgeon's comfort, and at the least expense to the hospital, as we furnish all the gloves used in the operating room. After very careful and exhaustive inquiries in many large institutions, we finally tried sterilizing them by steam, fifteen pounds pressure, for fifteen minutes in the autoclave, and have taken cultures from the inside repeatedly and have always found them sterile.

We make an envelope that is eight inches long and nine inches wide, folded so as to make a pocket on either side, with the name of the surgeon plainly written on the outside. A glove is put on either side of this container after being thoroughly powdered, care being used not to leave any loose powder in the fingers. This is then folded on itself and put either in a tin drum or in tin boxes, a

complete layout for each operation.

We have taken cultures from the inside of gloves that have been sterilized and left in the drum for a week, and have found them absolutely sterile. Some of the gloves have been sterilized twelve or fifteen times, and, instead of using more gloves, by this method over the old method of boiling, we have reduced the cost of gloves for the last year to quite an extent. After the gloves have been used for operation they are thoroughly washed in soap and water, and, if the case has been an acute pus case, they are boiled for ten minutes, and then dried by a clean person and powdered.

MRS. H. J. EWIN,

Supt. Free Hospital for Women, Brookline, Mass.

Italy's Tribute to Florence Nightingale.

The recent unveiling in the church of Santa Croce, in Florence, of Sergent's beautiful sympolical statue "Watchfulness" pays another tribute to Miss Nightingale. The inscription is in Florentine type and reads as follows: "Florence Nightingale, 1820-1910. Heroine of the Crimea. 'The Lady of the Lamp,' as the soldiers called her whom she tended in hospital, in the night watches, with wondrous, anxious care, and thenceforward by the force of her example was the moving soul of that voluntary work of international piety known as the Red Cross. This tribute of veneration and respect is raised to her memory in Florence, where she was born, and whose name she bore."

Public Rest Rooms.

Dr. R. Sommer, in volume X, No. 4, of Hachl's Contributions to the Study of Nervous and Mental Diseases, calls attention to the influence of hurry and nervous tension in producing nervous and mental disorders, and recommends the establishment of public rest rooms in the business sections of the city. They should be quiet, clean, easy of access, have separate rooms for the two sexes, and should be cheap. There should be portable rest rooms that could be used where great buildings are being put up and in connection with industrial establishments, for there is no doubt that fatigue plays a part in causing frequent accidents, decreased ability for work, early incapacity for work, and predisposition to infectious diseases, such as tuberculosis.



New Out-Of-Door Bed.

The chief value of this new sleeping device is that it permits the occupant to dress and undress in comfort. Ever since the medical profession decided some years ago that the cure for consumption and good health for those with weak lungs and a predisposition or hereditary tendency to tuberculosis depended much more on pure air and a sanitary environment at home than a residence somewhere else, out-of-door sleeping has been popular.

In most tuberculosis hospitals patients sleep on open porches, or porches with a roof, but not walls. Window tents, sleeping bags, and all sorts of devices are employed for the purpose, both for well people and for those actually suffering from some form of the great "white plague." But there is such a thing as too much exposure, and in most sanatoriums it has been a problem how to let pa-

tients sleep out of doors, well wrapped up, and at the same time make it possible for them to get up in the morning in a warm place.

Colonel Gignilliat, superintendent of the Culver Military Academy of Indiana, seems to have solved the prob-

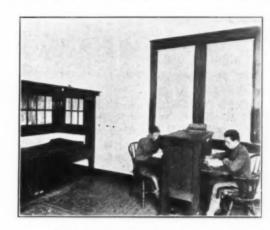


Fig. 2. Out-of-door bed as it appears in the day time.

lem. The large illustration (Fig. 1) is a very clear picture of the method. It is nothing less simple than a bed built close up to an ordinary window. There are end walls at the head and foot running up six or seven feet, a roof over the bed, and a large window on the room side; thus the bed is simply a bed with high, solidly built up head

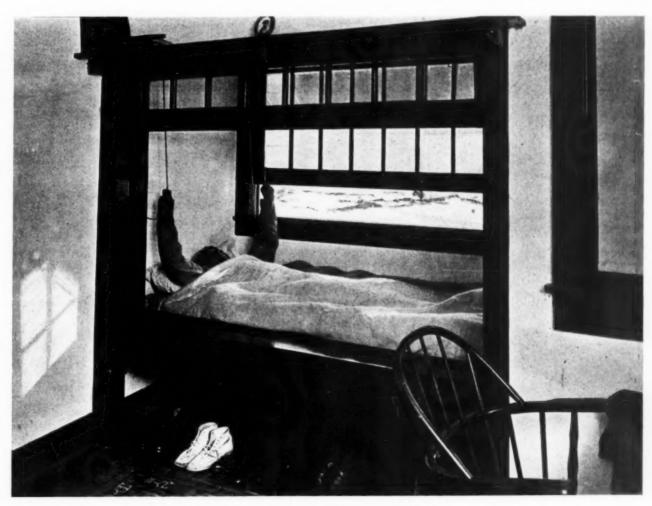


Fig. 1. Out-of-door bed as it appears at night when in use.

and foot, and a window on each side. The under part of the bed is left open, so that the heat of the room can always keep the bed warm. When the patient is ready for bed, having undressed in a comfortable room, he gets into a comfortable bed, closes the window on the room side after him, using the rope and pulley, as shown in the illustration, and opens the outer window by the same method. He is then out of doors, with all the benefits of the open air, but his bed is kept warm from the bottom, since it is inside the room.

The small illustration (Fig. 2) shows the bed as it appears in the day time, with open space underneath. It occupies hardly more space than an ordinary window seat, and can be built in by any house carpenter.

Colonel Gignilliat has had twenty-four cadets sleeping in this sort of bed for several months. He has told the Journal of the Outdoor Life, to which we are indebted for the illustrations, that these young men have shown greater capacity for work than the others, that their health has been better, and that they are making higher grades in their studies.

Improved Sanitary Toilet Seat.

One of the petty problems that hospital administrators have to annoy them constantly is that of clean, neat-looking, sanitary, and odorless toilet seats and bowls. The accompanying cuts show a new device. Briefly, it is a lid and a toilet ring all built up of wood. In the alternate layers of wood that make up these pieces the grain runs in different directions, so that the piece, when completed, will not split. After the divisions are built up they are covered with a composition exactly the same as that used for making billiard balls. It is set into and on the wood in a molten state, and really becomes so intimately connected with the wood that the two cannot be forced apart.

Just as billiard balls are made of different colors, so the composition in these toilet seats is to be made of various colors, and it is announced that colors will be black, mahogany, brown, and circassian walnut. It is said that this toilet seat will last for a generation. The hinge part is

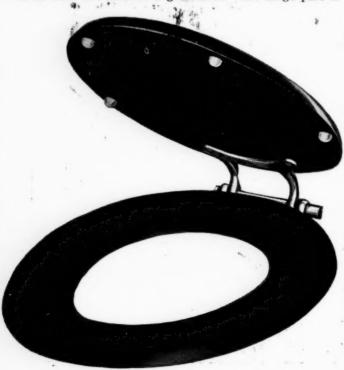


Fig. 1. Improved sanitary toilet seat.



Fig. 2. Showing the alternate layers of wood.

attached to the seat and lid in such a way that the process of cleaning can be accomplished without difficulty, and so that every part of the mechanism can be reached.

The Brunswick-Balke-Collender Company, makers of billiard tables and billiard room equipment, including billiard balls, say that their new device cannot be hurt by stains or alkalies, or acids of any kind, and that it will remain in a highly polished condition under the action of soap powders, boiling water, or any other cleaning material ordinarily used.

Architects, hospital administrators, and hotel people have all felt for a long time that the toilet seat problem had not been solved. Let us hope that this new device will furnish a solution.

Apparatus for Maintaining Proper Temperature in Irrigating Solutions.

One of the surgical problems in every hospital, and one that is constantly brought squarely up to the superintendent of the institution, is that of maintaining proper temperature in irrigating solutions. The old way was to use the open-glass percolator, with a loose-fitting lid, and a rubber tube leading from the bottom. It is even now a common sight in hospitals to see these irrigators surrounded by hot water bottles, which are generally held in place by bandages or adhesive plaster, or in many cases great strips of gauze.

A vast improvement over the old method was the Greensfelder inverted thermos bottle. The water in the thermos bottle, by this method, was maintained at practically an even temperature for many hours, and was thought to have solved the problem, but when the drop method was used the water was generally cold, traversing five or six feet of rubber tube, before it got to the body.

Meinecke has recently found a much better and apparently perfect solution of this problem by running a metal tube through a metal hot water bottle, the bottle itself to be located close to the patient. The illustration shows this device. The metal tube running through the water bottle

is made a part of the latter with solder. The rubber tube is attached at either end, thus making a continuous tube. The water in the bottle being at a little higher temperature than required of the irrigating water, this last can be kept constantly at a sufficiently high temperature up to

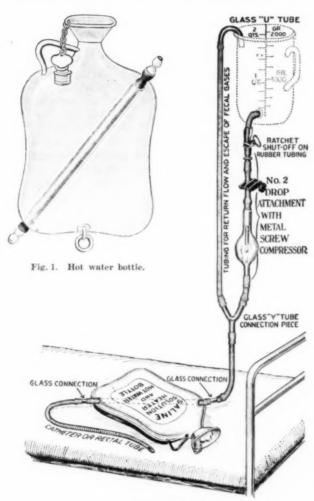


Fig. 2. Irrigating device in position.

the time it reaches the patient. The second cut shows the solution in use with the percolator at the top, and the end of the tube extending beyond the hot water bottle for injection into the cavity to be irrigated. This arrangement seems to meet every requirement in an irrigator for surgical purposes.

King Clovis, whose Frankish hordes swept down from the North with barbaric ferocity, subdued his less fierce but more civilized neighbors of the South; but, while he was absorbing their lands and their wives, he and his armies also absorbed the Christian religion, and, while resting between wars of conquest, he built hospitals. He had paintings made of himself with a sword in one hand and a cross in the other.

The "valetudinaria" of pagan Rome were the first dispensaries of which we have any authentic record. They were for the care of sick soldiers and slaves. Mostly they were out-patient stations to which the sick reported for medicines. Reports were also made there by well people concerning the sick back in the homes who were not able to report in person. The priest or an assistant then went to see them.



A New Pneumothorax Apparatus.

BY DR. SAMUEL ROBINSON.

The operation of producing artificial pneumothorax is gradually being performed more frequently in this country, and consequently a great variety of apparatus have been described and advertised. Some of these are very complicated and difficult to operate, while others are so primitive in their construction that they are actually dangerous. The apparatus shown in Fig. 1 seems to overcome these objections for the reason that it is comparatively simple, and yet a safe device to use if handled with only ordinary care. Two bottles of 2,000 c. c. capacity are employed. One is stationary and filled with water containing 2 drams of pyrogallic acid to take up any oxygen which may enter in conjunction with nitrogen. Nitrogen gas is then forced into the stationary bottle (Fig. 1, A), displacing the water back to bottle B. At completion of this dis-

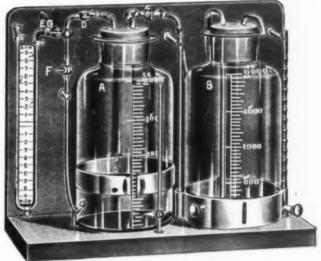


Fig. 1. Pneumothorax apparatus.

placement the apparatus is ready for use. On opening certain cocks, the water in bottle B replaces the nitrogen in bottle A, gradually filling it. The difference in the water levels of the two bottles represents the pressure under which the nitrogen is injected, the rapidity of its injection being regulated by the size of the opening in any of the cocks. When bottle B is full, the maximum pressure is obtained, amounting to about 14 c. c. of water. As the water levels approach one another, bottle B should be raised, thus maintaining the pressure until most of the nitrogen has been displaced, when the pressure is necessarily reduced. With this hydrostatic mechanism the pressure may be varied at will, never attaining the dangerous limit.

The arrangement of cocks d, e, and f corresponds to the

substitution of a three-way cock at point g. In other words, with cock d closed and e and f open, a direct connection is established between the thoracic cavity and the manometer. With cock f closed and c, d, and e open, connection is made between the confined nitrogen and the manometer, thus recording the pressure represented by the difference in water levels of bottles A and B. With cock e closed and all others open, the nitrogen passes directly from bottle A into the pleural cavity.

This apparatus has the advantages of stability and portability. The fixation of all cocks and tubing to the backboard facilitates their opening and closure, while the use of rubber tubing with clips, such as employed in earlier apparatus, proved a constant source of annoyance.

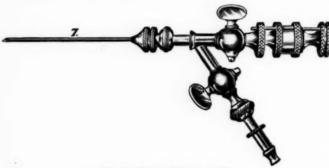
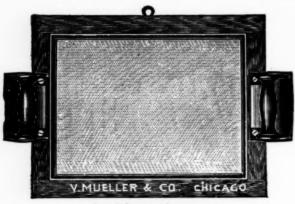


Fig. 2. Pneumothorax needle

Fig. 2 illustrates a needle which Dr. Cleveland Floyd has designed for use in pneumothorax therapy. It is of the type of Brauer's needle, with, however, several changes in construction, which experience has demonstrated to be of value. The Floyd needle is sometimes made with an additional needle and obdurator of smaller caliber, which can be attached to the stopcock of the needle shown in Fig. 2. The smaller needle is used for reinjections, and may be made of steel or iridium-platinum. The apparatus is easily portable and is contained in a mahogany carrying case.

Dr. Rupprecht's "Astral" Fluorescent Screen.

The astral screen is made of a substance which, when exposed to the influence of roentgen rays, fluoresces in a similar, though somewhat more whitish, light than that which is observed from the bario-platino-cyanide screen under the same conditions. A layer of the substance is



Astral fluorescent screen.

uniformly spread on a sheet of cardboard mounted in a wooden frame in exactly the same way as is the case with the screens at present in use.

Careful and critical comparative experiments have been conducted by a number of experienced radiographers on astral and platino-cyanide screens of various manufacture and varying age, with the help of three different types of apparatus. The following results were obtained:

The intensity of the fluorescence of the astral screen is considerably greater than that of the platino screen. Greater clearness of image is, therefore, obtained with the same amount of current through the x-ray tube-that is, for obtaining an image of a certain clearness the tube can be run more economically.

The astral screen gives a considerably more distinct image, both as regards outline and as regards structure, and therefore greater contrasts are obtained. Consequently the image obtained by means of the astral screen is of greater value for diagnostic purposes than that obtained with the platino screen.

It is a well-known fact that bario-platino-cyanide screens have a disagreeable and expensive characteristic of becoming brown in color and of losing a certain amount of their fluorescent property when they have been exposed for a considerable time to the influence of the x-rays. The astral screen is free from this drawback. Due to its chemical composition, the fluorescent matter of the astral screen is not acted upon by x-rays. Indeed, it is not acted upon by any kind of light, and is quite immune to x-ray, heat, sulphuretted hydrogen, and hydrosulphuric acid.

A Portable Carbon Dioxide Snow Apparatus.

Carbon dioxide, in solid form, has been used quite extensively for several years past in removing various skin desired, a selection of different size cones being furnished used has been a drawback to some extent on account of the



Fig. 1. Carbon dioxide sno

size and weight of the equipment. The apparatus illustrated has been designed with a view of making a compact and light equipment, yet having all necessary attachments for applying the carbon dioxide. The apparatus consists



Fig. 2. Case for holding the carbon dioxide snow apparatus.

of a small steel container (Fig. 1, A), with capacity of one-half pound of CO2. Attached to the container is the applicator E. On one end of the applicator is attached a cone having an opening of the size of the pencil of snow desired, a selection of different size cones being furnished with the equipment. On the opposite end of the applicator is a tube G, through which passes a plunger of correct size.

The instrument being assembled as illustrated, the gas

is turned on for a matter of three or four seconds, depending upon the amount of snow required. The applicator is then removed and held with the transparent cone pressed firmly upon a table or some other smooth surface. The snow is then firmly compressed into pencil form, the plunger serving as a holder in making application.

A New Type of Holder for Surgical Needles.

The illustrations show a new type of needle-holder which we have seen in use in many European clinics, and after examining the instrument carefully we came to the conclusion that it is one of the best needle-holders which we have ever seen. On account of the simplicity of the instrument it recommends itself at once to the surgeon.

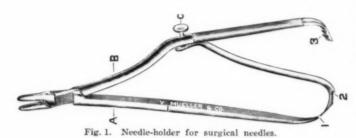
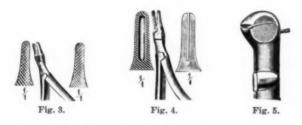




Fig. 2. Method of holding the instrument.



The needle-holder consists practically of two parts—the lower branch A and the upper branch B. The third part C (a push-button of noncorrosive material) is attached permanently, yet movable, to the upper branch B. The posterior part of the lower branch is thinned down one side (1), and acts as a spring, while on the other side is a catch (2), in which the catches on the upper branch (3) engage on closing. When the surgeon desires to release the needle, he presses on the push-button C. The shape of the instrument adapts itself comfortably to the hand, and there is no undue strain on the wrist of the operator, such as is the case with some of the instruments now in use.

The needle-holders are made in three sizes, 6 inches, 6% inches, and 8 inches long, and adapted for all types of needles, except Hagedorn needles. A special grasping point has been devised to hold this type of needle, as will be seen from the illustration. These instruments can now be obtained in this country under the name of the Simplex needle-holder.

New Kidney Forceps.

By Dr. F. Kreissl, Chicago.

Kidney forcers.

These forceps, when closed, have the shape of a canoe whose bottom has been removed. This construction permits of a firm grip on the kidney without bruising it or producing pressure on the renal pedicle, and facilitates manipulations directed toward the hilum, renal pelvis, and the upper end of the ureter.

CARE OF NEW YORK'S INSTITUTION CHILDREN.

Sixty Percent Were Defective on Examination, But Fortyfour Percent of These Were Cured in a Few Weeks.

The New York City Health Bureau of Child Hygiene has just completed a physical examination of children in institutions under its jurisdiction, as follows:

Sixty-three institutions were visited; 14,697 children were given a careful examination, and a written report on each child was left with the institution for its information and use; 6,486 of the children were found to be normal and 8,211 were defective, but there were in all 10,884 defects, many of the children having more than one defect. The defectives were divided as follows:

The defectives were divided as follows.	
Defective vision	88
Defective hearing	91
Defective primary teeth3,7	30
Defective permanent teeth	
Defective nasal breathing	09
Hypertrophied tonsils 9	69
Defective nutrition 2	12
Cardiac disease 2	59
Pulmonary disease 3	63
Orthopedic defects 2	04
Nervous diseases	76

In the report of the examining bureau some interesting statements occur:

"In general, the percentage of defects noted is about the same as that found among children in the public and parochial schools, an exception being noted in the case of defective teeth. This defect was found among the institution children in only 38 percent of the cases, while among the children in the public and parochial schools 49 percent were found to have defective teeth. This condition is undoubtedly due to the greater attention paid by the institutions to defects of this nature.

tions to defects of this nature.

"After each examination the institution authorities were furnished with a record showing the physical status of the child and its need of treatment. The medical inspector cooperated with the institution in obtaining assistance required by the attending physician, if such were needed. In this way much volunteer corrective work has been done by the physicians of the city and appropriate treatment has been obtained at an early date.

"In October these children were all reexamined to determine whether the treatment provided had had the desired result. It was found at that time that 2,730, or 44 percent of the children were entirely cured; 1,868, or 30 percent, were improved, while 1,593, or 25 percent, remained unimproved. Considering the brief time elapsing between the original examination and the reexamination, the percentage of children cured is remarkable, and indicative of what may be accomplished in safeguarding the health of children when it is possible to apply direct and prompt attention to their needs."



Mary M. Riddle, R. N., Editor, Superintendent Newton Hospital, Newton Lower Falls, Newton, Mass.

Salutatory.

Possibly no other one subject engages the attention of so large a number of people as does the nursing care of the sick. From the rich, who can have their wants as well as their needs supplied, on through the long list of the world's inhabitants, past the people of so-called moderate means to the objects of charity in institution or home, all are interested because all are more or less affected, and all have their ideas of what should be accomplished and just how it should be brought about. Their conclusions are oftenest reached through their own experiences or those of their friends and neighbors, and are consequently warped by circumstances that are usually far beyond the control of nurse or nurse schools; but these experiences or honest ideas are entitled to the respectful attention of men and women who are interested, and it may be influential in bettering conditions all along the lines of modern nursing.

The physician, the hospital superintendent, the training school superintendent, the man or woman controlling or being controlled within nursing bodies, the layman and the sick world, are urged to consider the Nursing Department of The Modern Hospital a medium for the transmission of thought regarding questions of nursing or those allied thereto—perhaps it may be by the presentation of a problem, or the solution of one already presented.

While it must be understood that the department does not expect to solve many problems, it hopes through its wider acquaintance to secure the one well fitted to do so. It hopes from time to time to be able to furnish its readers with information as to the possibilities of the course in the Department of Nursing and Health, Teachers' College, Columbia University. It will be recalled that this course had its inception in that oldest national nursing body, the American Society of Superintendents of Training Schools for Nurses, and was for many years almost wholly supported by contributions of its individual members. It would also cultivate a greater interest in that phase of university and settlement work which pertains in any way to the nursing question.

The great public health movement, including district and social work, the tuberculosis crusade, the nursing in army and navy, and under direction of the Red Cross—all command attention today and nurses are seeking information concerning them. Writers of any class or creed, as well as those without any pronounced beliefs, will be invited to a consideration of laws for the registration of nurses by the state from the standpoint of their necessity; their use and possible abuse; the good, the inadequate, and the poor laws may be discussed with equal and entire freedom, and the effects on the nursing schools of some of

our laws will doubtless make interesting reading from time to time

Training school work in its relation to hospitals, as well as in its relation to the nurse and the work she is to undertake after graduation, should occupy much time and attention because it is, after all, the foundation of all nursing work, whose influence is felt much further than at first appears. The obligations of the hospital and school to the nurse should be kept in view quite as prominently as are the nurse's duties and responsibilities.

In short, it will be the wish of the department to study all phases of this great work, and consequently it will invite general discussion along any line that tends to elevate and improve.

It has been said that President Eliot used the word "serviceableness" to sum up the mental and manual equipment necessary for an honorable and useful life. Apparently the word is made to cover the whole range of activity as well as the relations of individuals to each other and to the world in general. Should the columns of this department prove their "serviceableness" to the inquiring nurse or nurse teacher; should their words reach out to influence for good the care given the sick and maimed of our countrymen; should they, with this end ever in view, be able to plant and keep their standards upon high ground, THE MODERN HOSPITAL perchance need not regret the space occupied nor the time consumed.

The cooperation of hospitals, training schools, nursing organizations, physicians, nurses, and interested individuals is earnestly solicited and a place requested in their mailing lists for the department, that it may be in line to receive word of progress made and problems solved.

MARY M. RIDDLE.

The Joy of Vibrant Life.

Today health is recognized as a great essential in the world's work. Isabel Hampton Robb, in writing of the qualifications required in a nurse, says, "She must be strong mentally, morally, and physically." May I add that only by continuous care of that marvelous machine, her body, will she acquire the self-satisfaction of greatest usefulness. Upon the attention which she gives to this temple of her soul depends much of her mental and spiritual control.

In the course of her training to care for the sick she will learn much of value to herself, but it is not to be assumed that all who enter a school are at their highest point of physical development, or that those who are will remain so through three years' training, for we cannot remain stationary if we would. Either we advance or fall back. The wholesome food and regular life of a pupil nurse are in her favor, but the education of her hand, mind, and heart at once is an exhausting process. She needs relaxation, which refreshes, bringing to the muscle, tone, and to the mind, inspiring thought. If physical exercise which could do both were offered in a nurse's training, it would indeed be valuable.

One problem is to counteract the constant bending forward over patients by some game requiring backward movements. No one acquainted ever so little with a nurse's duties could doubt that she has sufficient exercise of a certain kind, but it does not tend toward graceful carriage of the body. Perhaps dancing, not the dancing as it takes place at entertainments, but folk dancing, may be the solution. Its value lies in the acquirement of coordination—in the training it gives in harmonious movement of trunk and arms as well as feet. Different move-

ments of the body must be executed at the same time, and this involves no small amount of mental training.

And where shall we look for the inspiring thought, for the mental toning up? She cannot readily get often to the best libraries and art galleries, or hear the best music, and yet she needs to be led on to higher things. Always she must be giving of her mind and heart as well as hand. Therefore let her realize that the music of the birds, the trees, and the whole out-of-doors is the wonderful music of the world; that the sunset and the ever-changing lights upon the hills are more beautiful than any painted picture. Invite her out of doors every day, but give her something to look for. All have not the trained eye of the botanist and the ear of the bird-lover. To walk in the open is good for mind and body, but, if one is to realize on the time thus spent, there must be joy in it. Play in the open air is ideal, and already tennis courts, skating rinks, and similar amusements are occasionally provided.

That the nurse should possess a well-modulated voice is generally agreed, but if, through conditions of modern civilization, she may have lost in part what nature gave, it becomes the duty of her training school to teach her the fundamentals of the science of tone-production. The nurse needs a quality of voice that will enable her to persuade, comfort, or reassure her fretful patient. Fortunate is she who already possesses it, but anyone may acquire it with proper understanding of the mechanism of the vocal organs and intelligent breathing exercises.

To realize her best self, the nurse must learn to walk, to stand, and to breathe so that she will produce a normal mental poise—to let the finest things that God has wrought in her shine forth.

Nursing in Contagious Diseases.

Francis Geo. Curtis, M. D. Chairman newton board of health.

The modern theory as to the method of transmission of infection in the so-called communicable diseases will undoubtedly have a marked influence over the nursing of these diseases, both in institutions and private homes.

The older theories of the transmission of infection are being discarded by an increasing number of men, who believe that it is transmitted by contact alone and not through the air or by means of fomites.

A belief in these latter methods of transmission is responsible for most of the rules in regard to communicable disease laid down by boards of health, but with increasing belief in contact as the means of transmission has come a change in methods. In order to understand this change, it is necessary to define carefully what is meant by contact infection. The Committee on the Study and Prevention of Communicable Diseases appointed by the Municipal Health Officers' Section of the American Public Health Association has defined these terms as follows: "By 'contact infection' is meant the transmission of infection by means of a person or article which has been very recently in contact with the patient or his fresh discharges, as well as by direct contact with the patient himself." "By transmission of fomites is meant its spread by means of articles which retain the infection for a considerable period of time."

This definition of contact infection differs somewhat from that commonly accepted, in that it includes freshly infected articles. As the belief in this method of infection has grown, changes in the methods of caring for communicable diseases have occurred, and one of the

dael

most marked changes has been in the construction of contagious disease hospitals and in the details of nursing. Hospitals have been built where cases of different communicable disease are treated under one roof—sometimes in the same room. England and France have a number of such hospitals, while Germany and the United States are just beginning to build them. In the United States there are at present two examples of such hospitals—one the Providence City Hospital, at Providence, R. I., built under the supervision of Dr. Charles V. Chapin, superintendent of health, who is the leader of this work in this country, and the other the newly completed hospital at Jacksonville, Fla., the establishment of which is due to the efforts of Dr. Charles E. Terry, health officer of Jacksonville.

In these hospitals, as well as similar ones abroad, what may be called "aseptic nursing" is practiced, the same nurse caring for cases of different communicable diseases, taking certain precautions to prevent the spread of infection by contact. The statistics of such hospitals, in so far as they relate to cross infection, are fully as good as those of the older contagious disease hospitals.

The methods in use in these hospitals are, at first sight, rather startling to one who is accustomed to the older methods of caring for cases of communicable diseases. In some cases patients with different diseases are in adjacent beds, separated only by a screen or a barrier of tape; in others they are in small rooms called "cubicles," which open on a common corridor, the same nurse going from room to room. The principle which actuates the system is founded on the belief that infection does not pass through the air from bed to bed, but must be carried by a freshly infected article or by a careless person, and that this transmission can be prevented by observing certain rules.

Where the cubicle system is used, each room is equipped with certain articles for the use of the patient alonethese are a thermometer, drinking glass, hot water bottle, etc. Each room is equipped with running water, hot and cold, the supply controlled by elbow or foot levers and running from a mixing outlet. A gown for the nurse hangs just inside the door of the room. In ordinary visits to the room the nurse need not wear a gown, but, if she is to perform any work requiring her to come in contact with the patient or his bedclothes, the gown must be worn. After attending to the necessary duty, if a gown has been worn, it is removed and hung in its place, the nurse then goes to the basin and washes her hands with soap and running water as hot as can be borne, drying her hands on an individual towel, which is thrown into a basket. In the Providence City Hospital no disinfecting solution is used on the hands. Practically the only articles used by the patients in common are table articles and bedpans. The former are taken from the room after use, the remnants of food are thrown into the garbage bucket, and dishes and tray put into a steam sterilizer, later being washed. Bedpans are emptied into the hopper, washed with hot running water and put to soak in 1-20 carbolic for half an hour, when they are removed to the drying stand.

Each nurse on duty has a double locker in the basement—one for her street clothes and the other for her ward clothes. On coming on duty in the morning she removes her clean uniform and hangs it in the clean locker, and then puts on her ward uniform. On leaving the ward for meals or to go off duty, she removes her ward uniform, hangs it in the ward locker, then goes to her basin and washes her hands, as already described, and puts on her clean uniform.

The above is a hasty sketch of the routine technic of

the so-called aseptic nursing in contagious disease hospitals under modern theories, and it is at once evident that it differs very markedly from the old methods. If carried out more generally, it will have a great effect on all contagious disease nursing. The first effect is on the health and safety of the nurse herself, in that it minimizes the danger of infection. In most of the common contagious diseases it is admitted, even by those who do not fully accept the contact theory of infection, that the chief gate of entrance of infection is through the mouth and nasal passages, and that, leaving out of account those cases where it is carried by infected food, the hands are the chief carriers of infection. If, therefore, careful attention is given to cleaning the hands, one means of self-infection is removed, and the hands must be most carefully attended to in "aseptic" nursing.

Again, it is not considered that the nurse who faithfully carries out the rules, can be a menace to others by carrying infection in her clothing when she is off duty, and for this reason the irksome and vexatious quarantine usually imposed on a nurse who is caring for a case of contagious disease is relaxed, and she is allowed to go about freely in her hours off duty. This enables her to take exercise in the open air and to obtain recreation, which under the old methods were denied her, thus keeping herself in good condition and increasing her powers of resistance to infection. The rules of "aseptic" nursing are the same for all contagious diseases, and do away with the necessity of learning a lot of rules for each one. This same increased freedom may obtain in private as well as institutional nursing, and the nurse may take proper exercise in her hours off.

Another result of the more universal adoption of this form of nursing, with its decreased liability to self-infection and increased liberty of action, may well be an increase in the number of nurses who are willing to take up contagious disease work, and even tend to the establishment of a class of nurses in each community who make a specialty of such work.

One point is that this form of nursing requires very careful attention to details, which must be learned so that each one will be carried out automatically. This takes time and will lengthen the time required for service in the isolation hospital, but, having once been learned, it is seldom forgotten. This attention to details may seem unnecessary, but it is the little things that count, and it should be remembered that forgetting to wash the hands after handling the patient may be the cause of transferring infection to another.

This brings up another point which should not be overlooked, and that is the personal responsibility which is entailed by this method of caring for contagious disease. Everyone connected with the service, be it physician or nurse, is personally responsible for his or her actions. If a patient with one disease is found to have developed another, it is not looked upon as an act of God or that it was fated that he should be infected, but it is considered that some one is personally responsible for a failure to carry out the necessary precautions, and a rigid investigation is held in order to fix the responsibility.

This emphasizing of the personal element is a great assistance to the careful carrying out of the rules, for no one likes to feel that he or she is directly responsible for the illness of a fellow-being. It has another effect also in drawing attention to the fact that everyone who has anything to do with the care of the sick should give the best that is in her or him to the sick one, whether it be for his protection against infection or ministering to his comfort

and helping him back to health, and the more the "personal fact" can be emphasized the better work will everyone be willing to do.

The House Beautiful.

Overlooking a valley that extends from the mountains to the sea is a narrow plateau which was originally guarded by forests. The beauty of the surroundings induced a wealthy manufacturer to build a stately mansion on its outlook, and to plant rows of elms that now arch over the long avenue that approaches the entrance to its doors. After many years the owner was taken from his home and gathered to his fathers, and the estate, through the generosity of the heirs and the liberality of the citizens, became the property of the Hospital Association. To its wide halls and spacious rooms come the sick inhabitants of the hill towns and the home city. The pure air, invigorating sunshine, and quiet, restful atmosphere of the whole place, with all the skill and care of physician, surgeon, and nurse, make it an ideal resort for those who have found themselves unequal to the task of balancing the two sides of the life and health account.

The results of its activity are not confined to the immediate walls of the hospital, but overflow into the channels of school and district nursing, and such emergencies as used to come within the largess of the old-time well-ordered home.

The special hospitals in the large centers are looking to the strong, sensible, bright-eyed pupil nurses of these small schools for assistance in carrying on their work. Such service is of mutual benefit, for it gives the pupil nurse an insight into conditions and methods that are foreign to the more quiet, secluded character of hospital experience in more remote towns and cities.

Within the last quarter of a century the hospital has found its way into the educational centers of college and preparatory school towns, the activities of thriving manufacturing cities, and even the wild surroundings of lumber and mining camps, and has become a power for good in teaching the community in which it is located how best to fulfill the laws of health. All honor is due to the members of the medical profession who so generously devote time, strength, and skill in advancing the best interests of these hospitals, whether on the medical and surgical staff or on the executive board of managers.

The hospital may be located in some very ordinary structure, or in the most approved plan of the modern architect; in either case it stands as a type of the House Beautiful, and it can never be complete without the trained intellect, warm sympathy, and skillful hand of a woman, whose province is to guide the affairs of its complex and complicated management.

In the heart of every graduate nurse there is an ideal of what such a woman should be, and, when her opportunity comes, let her strive earnestly to attain the "high calling" and aid in perfecting the House Beautiful.

Lucy L. Drown, R. N.,
Past Superintendent of Nurses, Boston City Hospital.

What the Leaders in Nursing Say.

In the vocational education for women the nurses have led the way. In the first place, you have come to your nursing—or you did in your earliest years—just because there was the great vital need of you. In your practice you found that it wasn't enough for you to apply the bandage, or administer the medicine, or make the bed, or merely follow directions. You found that you must know

more in order to act wisely and intelligently when you were alone. And so you added to your work by the bedside all manner of class instruction. You wanted to know why the sick room had to be kept sanitary, why you disinfected, why you prepared the operating room in a certain way. So you had class after class, and in the midst of heavy work took the hours to study, which make you more intelligent and able in your profession. Cooperation among institutions in behalf of nursing is one of the vital points for consideration.—Dean Arnold.

We are forced to the conclusion that there is little chance for any substantial progress in nursing education under the present arrangement. It would be unreasonable to expect that the hospitals would turn their scanty enough funds toward the building and furnishing of class rooms and laboratories, and the support of large faculties of instructors. They furnish us the most valuable possible laboratories, with opportunity for observation and for practice, that we cannot value too highly or too securely maintain. The conditions of which we complain are not inseparable from that service. If industrial corporations and universities can arrive at equitable and effective methods of cooperation, it should not be impossible to philanthropic institutions and schools of nursing. This problem of nursing education is too heavy a problem, and too fraught with momentous possibilities for public good or public ill, to rest entirely on the shoulders of one body of women. It is the people of the country, not the teachers themselves, who support teaching education, and we have seen that the same is true to some extent of agricultural education, of engineering education, of domestic science, etc. There is a distinct tendency toward the state control of vocational training. Certainly, if state support is to be distributed according to need, or according to the importance of the public contributions rendered, there are few vocational schools which should receive more ample endowments than the future schools of nursing.-ISABEL

In all the professions we are going through a pretty rapid evolution. Old standards are giving way to new. More and more we are coming to appreciate; not merely for the sake of the worker, but for the sake of society which that work is to serve-the desirability of broad equipment. In no other profession, I suppose, has a finer spirit of devotion been shown than in that of nursing. In the older days, when we had no science, no accumulated knowledge, the tender touch and the fine sympathy and the painstaking ministrations of the nurse represented the maximum contribution possible to human service. But today we should say that, supplementing that fine sentiment and fine devotion, the person who undertakes to follow the career of nursing without a grasp of the accumulated knowledge which the world has put at our disposal would be falling far short of any reasonable measure of human service.—David Snedden, Massachusetts Commissioner of Education.

True progress, in the largest sense comes, most rapidly by acknowledging good work wherever it is found, and by learning to follow the good example. Fifty years from now nurses will look back and say that we did not know very much about nursing in the first decade of the twentieth century, even with the twenty-five years of pioneer work that lay behind us. Nevertheless, the more faithfully each one of us does her own individual work of today, the more rapid will be the growth of this great movement—the art of caring for the sick—which already has exercised so vast an influence in all countries on the social conditions of the state and of the city and of the town, and on the

social customs of the family and of the neighborhood.—
--LINDA RICHARDS.

That any kind of a hospital which does its duty by its patients has a perfect right to exist would seem to be beyond question. Nevertheless, it must be insisted that each owes a duty to the public as well, and must be open to commendation or censure, according to the system employed in providing proper nursing for its sick. . . . Some women are given the popular term "born nurses" when they are especially remarkable for good sense and adaptability; but we know that nurses are made, not born, and the rule has but few exceptions that it is the woman whose general education is the best who is able to do one particular thing best. If this be true in the simplest things, how much more is training required for work as complicated as nursing.—Isabel Hampton Robb.

My first proposition is that the dignity, and we might say the value, of any subject is to be determined by the quantity of theory in it. You all remember the young man who was called to open a safe. The combination had been forgotten. He tapped it with a hammer here and there for a few minutes, and, listening, heard the bolts moving back and forth, and finally, at the end of a half hour, opened the safe door. He sent in a bill for \$25.50—50 cents for the mechanical work and the time and \$25 for knowing how. Now, that is the worth of theory. The knowing how, why, and when to act is the gateway of the whole situation, and the dignity of any field is found in the richness of the theory in that field; or, in other words, is found in the amount of thought required.—Professor McMurray, Teachers' College.

The tendency of the times in all forms of work, both mental and physical, is "With labors assiduous due pleasures to mix." . . . When a young woman chooses a certain school or college in which she is to spend three or four years of her life, she expects to find within the environment of that school opportunities of a social as well as an educational nature—no doubt more of the former than she is able to take advantage of will be provided. Training schools for nurses have been slow to recognize the necessity as well as the advantage of furnishing within their own precincts social privileges for those under their charge. The lack of a pleasant atmosphere in the home life may sometimes, not always, be given as a reason for the objectionable interests chosen by nurses outside their school life.—Jessie E. Catton.

I would say that power is not so much a matter of rule as it is of knowledge. So, when we are conscious of lack of power to realize our ideals, let us look within and see where we can elevate resourcefulness, let us inform ourselves more about the psychology of the environment in which we find ourselves. Do we perceive the point of view of those who differ from us? If we do, and are still convinced that what we strive for is right and feasible, let us attack the weak spot in the opposition and win our adversary by logic and reason. Sometimes a field must be abandoned, but surely not until every effort has been made to succeed in the work which we have undertaken.—Saea E. Parsons.

A woman, to be a nurse, requires education, tact, good sense, good manners, and good health.—Dr. S. Weir Mitchell.

The new Miami Valley Hospital for social and contagious diseases at Dayton, Ohio, will be ready for occupancy by February 1. The hospital is not expected to be self-supporting, and the city is planning to provide the necessary support.



Effect of Blood Stains on Fabrics.

To the Editor of THE MODERN HOSPITAL:

Do blood stains destroy cotton and linen fabrics, or is it the use of chemicals in the shape of bleaches, to remove them, that destroys the goods, and what is the remedy? T. W. B., New Orleans.

Blood contains a good deal of iron under normal conditions. In clinical practice we use the hemoglobinometer to determine the amount of iron, and determination of the amount or percentage very often fixes the diagnosis of a disease. When the blood is released from its normal element, the body, it begins at once to undergo certain chemical changes, and it is in course of these changes that the iron becomes released and forms oxides, the same chemically that we know as rust. You can see the effect of this iron on fabrics by observing the operating room white coats and trousers; wherever there are metal buttons, the fabric will rust. You notice this more when the goods come from the laundry, because water is necessary to set iron rust to work. But not all the eating of fabrics is done by the iron alone; much of it is done by the acids and bleaches in the laundry in attempts to remove the stains. The cure, of course, is to get the blood off the fabrics at once, and before it dries-that is, before there are any chemical changes.

Problem of Securing Good Help.

To the Editor of THE MODERN HOSPITAL

We have been having a great deal of trouble with our common male help. Recently we increased the wages of floormen and janitors from \$25 to \$40 per month, hoping thereby to obtain a better class of men. It has not worked out so, and if anything, the men obtained under the new wages are worth less than the others. Is our experience unique, or is this the common experience, and, in any event, what are we to do about it?

M. A. B., St. Louis.

It seems that the help problem is almost a personal or individual affair. The source of supply appears to be the greatest factor. I have in mind one employment agency that has proven very reliable for me; it handles foreigners exclusively-Poles, Scandinavians, and Germans, and also some Balkan immigrants. The Scandinavians and Germans make the best help until they learn to speak English. Then they are able to make more money at other occupations, and they leave. It is my own experience that about one out of ten men hired will prove satisfactory, and occasionally I have got hold of one who would easily do the work of three loafers and time servers; then I raise this man's wages gradually until he is getting enough to make him a fixture for life. One loafer will eat as much as a good employee, will generally steal from you-money or its equivalent, as well as time-and is a bad example to all others. Such a man will often operate a regular system to teach the subtle art of loafing to other employees, and he is sometimes a philosopher and can instill his

philosophy into the minds of the other help. Presently you will have a completely educated corps of loafers, who will actually prevent any good employee from doing good work.

Eternal vigilance and the systematic laying out of the tasks is the only method by which to measure your people, and a weeding out of the loud-mouthed, self-assertive leaders of the help will do the rest. Better change your system of pay; start your men in at the bottom wages; know all about them when you hire them; tell them they will be advanced in wages as rapidly as they become efficient; give the good man something to work for. The common help are quite as human as the rest of us.

JOHN A. HORNSBY.

Carbon Versus Tungsten Lamps.

To the Editor of THE MODERN HOSPITAL:

Which is cheaper and more efficient, 16-C. P. carbon lamps at 15 cents, with free renewals, or tungstens at 60 cents without renewals?

A. L. W., Baltimore.

There is evidently a mistake in the price named for tungsten lamps. Let us assume that we are considering 16-C. P. carbon lamps, with free renewals, versus 20-watt tungsten lamps at the list price (which is subject to a discount if bought in quantities), 35 cents.

The two lamps are about equal in the amount of light given out, and will doubtless offer better distribution than if a lesser number of larger units are employed. We will also assume that the tungsten lamp is burned at the middle voltage named on the lamp. The life of the lamps, excluding losses from breakage, will not differ greatly. Suppose the cost of current to be 6 cents per K. W. hour, which is a fair average price. We have:

1 20-watt tungsten lamp\$0.35	,
800 hours current consumption or 16,000 watts at 6 cents per K. W. hour	í
Total cost 800 hours 16-C. P. illumination tungsten lamp	
1 16-C. P. 57-watt carbon lamp\$0.00 800 hours current consumption at 6 cents per K. W. hour2.73 6-10	
Total cost for 800 hours 16-C. P. illumination with carbon lamp\$2.73 6-10	

LOUIS R. CURTIS, Superintendent St. Luke's Hospital, Chicago.

Good Soap Composition.

To the Editor of THE MODERN HOSPITAL:

The question of cleaning powders and soap has been bothering me a good deal. It seems this matter of soap is a very technical question. I, for one, do not understand the chemistry of soap. A salesman recently told me that "suds" had nothing to do with the value of soap. Is this true, and what is the real test of good soap?

H. M. G., Chicago.

Suds has very little, if anything, to do with the value of soap. The most effective soaps do not make a lather, and many excellent soap manufacturers have to strain their consciences when they make lathery soaps in response to the demand of some housekeepers. We are getting away from the suds idea very rapidly.

We now think more about real soap values—namely, the combination of good animal and vegetable fats with a potash or soda alkali, or lye, and the proportions of these combinations must be right. One of the commonest practices in soap adulteration is to put in an excess of "lye" or potash to make the soap carry a large amount of water. With this excess of water can be carried the cheap so-called fillers—resin, grit, and refuse of packing houses. In this kind of soap you are paying soap prices for water

and these cheap fillers. You will get plenty of suds with these cheap soaps, but they do not clean things. Good soaps are neutral or very slightly alkaline, but never acid in reaction. Most dirt has a basis of grease; it is the function of soap to enter into combination with these greases in the dirt and render the whole mass soluble, so that the water will take it up. That is why hot water will clean better than cold. The less adulterant soap has in its combination, the more greasy dirt will it take up. If there is an excess of these potash or soda salts, they will be free to eat into your fabric or your varnishes, and they will destroy rather than clean. So much is this the case that some of the best soap makers are using the carbonates instead of the lyes in order to avoid the destruction of fabrics, floors, and furniture; and soap so made, while costlier per pound, will do proportionately more work, and will not destroy things.

To the ordinary housekeeper or hospital matron the best guarantee of good soap is the reputation of good houses. But, if you want to test the matter yourself, take a given quantity of some very cheap soap and the same amount of good, high-priced soap; then clean with each exactly the same kind and amount of surface, or wash the same amount of laundry goods that contains the same amount of dirt, grease, or stains. If you are using a floor surface, and a ward floor is perhaps the best medium to make the test, examine carefully, after the process is complete, to see if any grease is left behind; if so, your floor is not clean.

The use of clothing and laundry goods does not wear them out. It is in the laundry they are destroyed, and in one of two ways—either by the use of strong lye soaps or by bleaches. If you use good—that is, real—soap, you will not need bleaches, and your goods will last very much longer.

Steam Versus Hot Water for Heating.

To the Editor of THE MODERN HOSPITAL :

Can you tell us something about the relative merits of steam versus hot water for heating purposes in the hospital? There seems to be arguments in favor of and against both, and we are unable to arrive at a satisfactory decision.

J. W. C., Rochester.

The advantages of steam heat may be summarized as follows: (1) the cost of installation is twenty-five to thirty-five less than for hot water; (2) exhaust steam can be used without the use of expensive apparatus; (3) heat can be supplied to parts of a building in an emergency more quickly; (4) aside from cost, it is often an advantage to use smaller radiators and pipes; (5) a defective pipe will cause much less damage; (6) repairs to pipes and valves can be made with less trouble; (7) the trouble incident to the pressure, due to the hydraulic head, is eliminated; (8) hot water is not well suited to use in hot blast radiators used in connection with ventilating systems; (9) automatic control of heat is more satisfactory with steam; (10) it is usually desirable to heat the hot water for domestic uses with steam; (11) a steam plant usually fits into a general mechanical scheme better than a water plant, and this is especially true when steam is used for laundry power, cooking, and sterilization.

Hot water is superior in the following respects: (1) some air changes incident to the use of artificial heat are less noticeable with water than with steam; (2) better general regulation to meet weather changes is possible, and, in the event that the regulation of individual apartments is manual, less attention is required; (3) if properly installed, there should be no annoying noises from pipes or radiators; (4) less attention in the boiler room is nec-

essary; (5) the aggregate cost of repairs in low buildings should be less than with steam; (6) the cost of operation should be enough less than steam to cover depreciation and the interest on the excess cost of the water installation; (7) it is possible to use exhaust steam by using a water heater similar to a feed water heater of the closed type; (8) in a small hospital where steam is not required for other purposes, hot water offers the most advantages; (9) in tall or widely extended buildings, or where there is power plant, steam is the better.

LOUIS R. CURTIS, Superintendent St. Luke's Hospital, Chicago.

Autopsies In American Hospitals.

Dr. Abraham Flexner, in a recent address before the State Charities Aid Association, called attention to the difference in the number of autopsies performed in German and English hospitals and those of America. There all patients entering public institutions are told that in case of death an autopsy must be performed, while here the consent of the family must be obtained. Dr. Flexner advocates a law requiring autopsies. The International Hospital Record (December 17, 1913), commenting on the address, says that the idea is quite impractical, that the matter of autopsies on hospital patients is one in which neither the American hospital or the American physician will ever have anything particular to say. This will be decided entirely by the patient or the patient's relatives, and there are few who will be willing to offer themselves or their relatives for the purpose of advancing medical science through the medium of an autopsy. This idea that the American people will continue to refuse autopsies when their scientific importance is once understood seems to be controverted by the experience of the Phipps Institute in Philadelphia. Their experience for the past ten years is published in the Journal of the American Medical Association (January 3, 1914, page 29). The patient, on entering, is required to sign a blank consenting to an autopsy in case of death. During that time the number of autopsies performed has been 98.37 percent of the deaths, in contrast with a percentage ranging from 4 to 24 percent in other American hospitals, while the German hospitals show a percentage of 77 to 99.9 and the English from 71.9 to 85.9. Dr. Landis thinks that the signing of the blank has had practically no influence in keeping patients away from the hospital. The Journal of the Maine Medical Association (December, 1913), in commenting on the same subject, thinks that legislation on the subject should be preceded by an education of the public as to the value of autopsies and by greater zeal on the part of physicians in trying to obtain them.

The walls of the first floor of the new Cook County Psychopathic Hospital at Chicago were finished on November 9. On January 9, or just sixty days later, the roof of the five-story building was on, so that the building could be inclosed with cheese cloth in the windows. The building was then ready for partitions and plaster. This is considered a record for rapid winter work.

Contracts for the construction of the new \$100,000 hospital for women connected with the Southwestern Hospital for the Insane at San Antonio, Texas, have been let. The general contract for \$43,343 was let to E. Niggli & Son, plumbing to Edward Braden at \$4,113, and to Martin for the electrical work at \$938. Under the stipulations the building is to be ready for occupancy in June.

HINTS FOR HOSPITAL SUPERIN-TENDENTS.

Never forget that a hospital is a place in which to care for and cure the sick. Every other consideration should be subjected to this fundamental principle, but this does not mean that unreasonable demands of the sick or their friends should be granted. Interns and nurses can always fall back on "the doctor's orders."

Never give an order to one of your department heads unless you know what you are talking about. You ought to be posted about the apparatus, and technic, and the working conditions everywhere. The best administrator is he who can go in and run any department at a pinch, fix the machinery or make proper adjustments; the next best is he who helps his departments by giving them proper facilities with which to work, and who does not handicap them with unreasonable conditions.

If it is at all likely that a patient or his friends may become needlessly alarmed by an entry on the record sheet, keep the record clear out of sight—in another room if possible. If it is in sight and you refuse to let him see it, a patient will work himself into a nervous and possibly dangerous condition, imagining the worst. Many a well person has been made ill by solicitous inquiries of friends. How much more harm can be done to a sick person by letting his imagination dwell on something he thinks is being kept from him?

We are often questioned about the advisability of baking our own bread. Some rather definite rules of cost regulate this matter. Hospitals of less than 500 people, sick and well, can hardly afford to bake their own bread, and they will not save any money by doing so. There are long arguments and many figures, but these are the facts. Of course, in a municipal hospital that can work patients, or that is connected with a penal institution that has free labor, the case will be different; and hospitals out in the country, such as sanatoriums, are also in another class, because transportation for bread is not good.

Never treat lightly or flippantly a complaint brought to you by an employee. To whom may he take his trouble, if not to the head of the institution? And what may seem very trivial to you may be a very serious thing to him; his life, and comfort, and advantage mean as much to him as yours do to you. If you refuse to listen seriously and act when the case justifies it, you will soon get, and you will have earned, a reputation for unfairness that will haunt you, and do you and your institution great harm in some crucial situation. A superintendent who is known to be fair and just will be forgiven by his employees for many faults—and all of us have faults.

If you think a staff member has done something that should be officially noticed, the first thing to do is to be very sure that the story has come to you correctly; then make sure that the action or conduct was actually wrong. If an intern or nurse, or another staff member, has told you what occurred, substantiate the story. One of the best sources of correct information is the head of the training school. If she does not know the facts, she can get them better, and with less disturbance, than you can. Then it is a mighty good plan to send for the man implicated and get his side of the case. Further action on your part will

not be prejudiced by this course, and often you will be saved from a ridiculous and embarrassing situation by having an explanation that will put a new face on the whole matter.

Study your problems intelligently and thoroughly. If you seem unable to get good coffee, go to the kitchen and make a thorough study of the methods employed there. Call in your coffee salesman; usually he will know a lot about making coffee. Visit some hotel or restaurant where they have good coffee, and see how they do it. It may take you a week or a month to learn what you need to know, but you will have solved the coffee problem. Handle your other problems in the same way, and in the course of time you will have laid up a fund of information that will greatly add to your efficiency and to the efficiency of your institution.

Because the laundry happens to be hidden away in some disagreeable hole is no reason why it should be forgotten and neglected. Its functions are among the most important in your institution. Waste and extravagance can make large inroads on your resources, and poor facilities are quite as costly as actual waste, because your employees cannot earn the wages paid them. A clean, well-lighted, well-ventilated laundry will mean far greater efficiency in the workers, and decent regard for the comfort and health of the people will mean efficient workers. Good workers do not have to submit to intolerable working conditions, and, if you maintain these, you will have poor help, poor work, and a costly establishment.

If you can break up the walls of your wards and rooms into panels, even if they are only paint panels, you will save a lot of paint and time. Rooms or wards painted solid one color have to be gone over completely every little while, because there is a chunk of plaster nicked off at some point, or because the bed or dresser rubbed. If there is a dado that comes up high enough to take in the head of the bed and the top of the dresser, you will have to paint only below this dividing line when the wall begins to look bad. A frieze at the top is another good thing, because ceilings get dirty far quicker than side walls, and the dirt soaks into them more readily and is harder to get off; therefore the ceilings require more scrubbing and the paint wears off quicker, so that the ceilings have to be renewed oftener than the side walls, and, if the colors are different, the side walls can be let alone, or wiped off gently with clean sponges and hot water.

Try washing your dishes with the common green oil soap which you are accustomed to use only for floors, walls, and other surfaces, but put a sprinkle of washing powder in the soap water, or a little soda. The alkali will serve to clean the soap off the dishes. Bar soap is extremely wasteful for dish washing, and the maids waste far more than they use. The best way to employ green soap is to boil up a quantity at a time, and the laundry soap boiler is a good place in which to boil it. Use one pound of green soap to one gallon of water. It is best to keep the solution in a five-gallon wooden keg, with a wood faucet. The maids and men janitors can draw off a sufficient quantity-say, a pint of the solution to a bucketful of hot water. The dish washers can do the same. This green soap solution, with a little soap powder or soda added, is the best and far the cheapest soap to use in dish washers as well as in hand work.

VALUABLE SUGGESTIONS FOR DISPENSARIES.

Associated Out-Patient Clinics of New York Reports on Gynecological Patients and Cancer—New History Card.

In the December number was published a most important contribution to system and order in the form of a report on tonsil cases, syphilis, and gonorrhea by the Associated Out-Patient Clinics of New York. The New York Association is doing an untold amount of good for all the out-patient clinics and dispensaries of that city by reducing their methods to a uniform basis.

A second report has now been published, this time on the care of gynecological cases in the clinics and cancer of the female genitalia. The report includes a set of instructions which may be taken by dispensary clinicians as merely suggestive for their own use in instructing patients, or the instructions may be printed in the appropriate language and distributed to women patients. In the report there is also a suggested history card, so far superior to any card this writer has seen that is reproduced.

THE MODERN HOSPITAL feels that its pages can be used to no better advantage than for publication of this report in whole, because, if there is any one thing in the whole field of hospital activity that needs efficiency and system, it is the relationship between the out-patient and the clinic, or, rather, the individual clinician who comes in contact with the patient.

RECOMMENDATIONS OF EXECUTIVE COMMITTEE OF THE GYNECOLOGICAL SECTION OF THE ASSOCIATED OUT-PATIENT CLINICS OF THE CITY OF NEW YORK.

ADMINISTRATION AND EQUIPMENT.

1. The Executive Committee recommends that the services of physicians in gynecological clinics be limited to four years. This rule shall not, however, preclude reappointments.

2. The Executive Committee wishes to emphasize the value of accurate clinical histories, and recommends that uniform forms of histories be adopted by all the gynecological departments of the city.

3. The Executive Committee recommends that, in order to equalize the duties and responsibilities of the assistants in the clinics with reference to taking of histories, a weekly rotation system should be adopted at each clinic, and efforts should be made to secure the services of medical student clerks or other clerical assistants for that purpose.

4. The Executive Committee is of the opinion that local gynecological treatment is of undoubted value, and that it is indispensable that proper equipment be furnished in each dispensary or out-patient department of a hospital having a gynecological department.

5. The Executive Committee is of the opinion that every properly equipped dispensary should have, in addition to the usual gynecological instruments, an equipment for cystoscopy, also arrangements for the proper determination of (a) urine, (b) smears, (c) Wassermann reaction, (d) blood, and (e) diagnostic specimens, in properly equipped pathological laboratories.

6. The Executive Committee recommends that gonorrhea in women should be treated in the department of gynecology, but that syphilitic patients be referred to the department of dermatology or special department of syphilography.

7. The Executive Committee recommends that children suffering from vaginitis should be treated in the gynecological department of dispensaries, or in special departments for the treatment of the disease, if such are available.

8. The Executive Committee wishes to emphasize the value and need of printed hygienic instructions to patients suffering from gonorrhea and cancer, and recommends that uniform printed instructions be adopted by all gynecological clinics of the city. The committee also recom-

mends that instructions with reference to cancer of the womb be given to every patient in gynecological clinics, and that the dispensaries located in districts with a considerable foreign population print all their hygienic instructions in such foreign languages as are most suitable for their neighborhood.

The Executive Committee recommends that the principle of limitation of the number of patients in each clinic should be adopted, such limitation to be based upon the estimated facilities in men and equipment of each clinic. The Executive Committee further wishes to advise that, as a general working rule, the average of six patients, old and new, per table per hour be adopted.

10. The Executive Committee recommends that evening

STANDARD HISTORY CARD FOR THE GYNECOLOGICAL CLINIC.
No Diagnosis
Name Address
S M W Age Nativity
Occupation.
Character
Duration
Commencement
Living and other economic conditions
1. Previous illness
2. Menstrual history.
Onset(A) past.
Periodicity
Quantity
Duration(B) present.
Pain—before
during
after
3. Labor.
Number
Last
Normal
Instrumental
Complications
4. Miscarriages.
Number
Last
Period of gestation
Complications
Treatment
Cause
5. Present illness.
Pain
Discharge
Urination
Bowels
Duration
6. Physical exmination.
General appearance
External genitals
Vagina
Uterus—body
cervix
Adnexa—right
left
Parametrium—right
left
Urinary organs
7. Treatment.
Local
Drugs
Home

Size of history card, 81/2 inches wide by 13 inches long.

clinics for patients working during the day should be

INSTRUCTIONS TO PATIENTS.

Instructions to Patients Suffering from Gonorrhea.

You have a serious contagious disease. For your own protection, and the protection of others, observe the fol-

lowing precautions:

1. Keep the parts as clean as possible. Always wash the hands after handling the parts; the discharge, if carried to the eyes, may make you blind. Be sure that no one uses your toilet articles, particularly towels, wash cloths, and soap. All towels, wash cloths, bedding and underclothes, soiled by discharges, should be boiled and washed separately.

2. Never lend your syringe or douche bag to anyone; wash off the douche nozzle with boiling water each time after using, and as soon as you are well destroy it.

3. Sleep alone. Do not have intercourse with your hus-

band, and avoid all sexual excitement.

4. Be sure that the bowels move every day. If constipated, take a laxative

5. Do not use alcohol in any form, as it always prolongs

the disease.

6. Drink from six to eight glasses of water a day.
7. Avoid all spicy food and drink, such as ginger ale, mustard, pepper, and horseradish.

8. As long as the discharge is free, or there is any pain, keep off your feet as much as possible, especially at the 9. Do not neglect these precautions until a reputable

physician pronounces you cured.

Instructions to Patients Suffering from Cancer of the Womb.

Cancer of the womb can be cured in the early stages. 1. Prolonged or irregular monthly flow is frequently the first sign of this disease.

2. Slight bleeding after a douche or sexual intercourse

is one of the earliest signs.
3. After the age of 30 any of the above occurrences should demand an immediate local examination of the internal organs by a competent physician.

4. There is no pain with cancer in its beginning. 5. Profuse bleeding and frequent spotting is not a sign of change of life-it may mean cancer.

Our February Cover Design.

Mr. Garden's cover design for this month is a sketch from the grouping of the Sea View Tuberculosis Hospital, New York. The illustrated description of this hospital by the architect, Raymond F. Almirall, shows a rather new development of a group of buildings about a horse-shoe service center. The hospital was originally planned to cost \$2,000,000, but numerous changes were ordered that have considerably increased the cost. The hospital is one of which Greater New York may well be proud.

Conference of State Medical Boards.

The annual conference of the Federation of State Medical Boards of the United States is to be held in the Francis I. room of the Congress Hotel, Chicago, on Wednesday, February 25th. The officers of the Federation, Dr. Charles H. Cook, of Natick, Mass., president, and Dr. Otto V. Huffman, of the New York State Board of Charities, secretary, have announced that the program will deeply concern hospitals, and must therefore be of intense interest to hospital people. The Federation gives a cordial invitation to hospital people to attend and participate in the program.

Huron Road Hospital, of Cleveland, plans to sell its present hospital buildings down town to the city for an emergency addition to the City Hospital, and will build a \$500,000 new 400-bed hospital on East boulevard. The present Huron Road property has been offered to the city for \$200,000.

NEW YORK'S "INQUIRY" COMMITTEE.

Report Shows Grave Wrongs at Gouverneur Hospital-An Ideal Out-Patient Arrangement-Appeal Made for Social Centers With Many Functions.

The committee on inquiry into the departments of health, charities, and Bellevue and allied hospitals of the New York Board of Estimate and Apportionment has just published "Section VII" of its report, taking up at this time the following items:

1. The out-patient department of Gouverneur Hospital.

2. Suggestions for the organization of a public out-patient department.

3. Sickness in the home, and a proposed health center. The committee found much to be desired in the out-patient department at Gouverneur Hospital. Patients were examined in groups when they were examined at all, the more common method of procedure being to ask a patient, with thirty or more in the room at one time, what was the matter with him, and then give him a prescription. It is only fair to say that the medical staff at Gouverneur stoutly deny the committee's statements and promise a big row over the matter.

Under the second heading of its report the committee reviews out-patient work, including social service, home and district nursing, and winds up with a picture of what an out-patient department should be, going into details of architecture, arrangement of the various suites, and details of record keeping and medical conduct of the department. This part of the report includes floor plans of an ideal out-patient department prepared by Dr. S. S. Goldwater.

The third part of the report argues in favor of what we might call neighborhood service, with social center, visiting nurse organization, various clinics-as, for instance, a dental clinic, a child's clinic, a bureau for the supervision of midwives, and over all a medical organization, details of which are given.

The report is exhaustive, covers many items of interest, and must be most profitable reading for anyone having to do with the health and welfare of the community or the individual.

After a very long period of investigation of modern hospitals of the same kind elsewhere, the superintendent and architects of the new Columbia Hospital for Women of Washington, D. C., have incorporated some unique features in the plans, chief of which are roof kitchens and dining rooms. The bids have been let in accordance with Government specifications, it being a Government hospital, and excavation for the foundation has already commenced. Nathan Wyeth, the architect, and Dr. J. O. Skinner, superintendent, expect the building to be ready for occupancy next fall.

A new \$175,000 Children's Hospital at Los Angeles is nearing completion on the hillside at Vermont avenue and Sunset boulevard. The building is of armored concrete and brick, with hard interior work, tile partitions, composition roofs, cement and tile flooring. There are four buildings in the group for different classes of patients, power plant, and quarters for employees. It is to be a very completely equipped hospital, with steam heat, electric elevators of the automatic style, an ice and refrigeration plant, house telephones, and specially designed infants' and children's baths. The architects are Messrs. Hunt and Burns. Mrs. W. T. Johnston is chairman of the Building Committee, and Miss Vannier is superintendent.